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The extended school year is based on the needs to economize, to improve teacher status, to deal with the teacher shortage, to improve and enrich education for all pupils, to achieve pupil acceleration, and to keep youth busy and off the streets during the summer months. In spite of these claimed advantages, experimentation and adoption of extended school year plans have not been widespread. After a discussion of the traditional summer school plan, this report summarizes the operations, experiments, and studies which have been conducted on each of the following plans: (1) Rotating four-quarter, (2) continuous four-quarter, (3) extended school year, (4) continuous school year or continuous progress, (5) multiple trails, (6) modified summer school, (7) trimester, (8) quadrimester, and (9) extended K-12. A bibliography containing 62 books and articles, 22 research reports, and five research summaries is appended. (DE)

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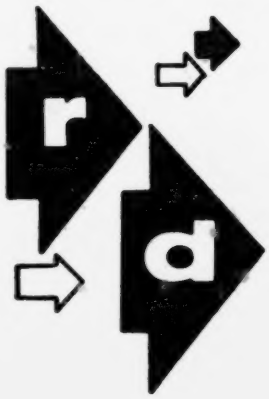

RESEARCH SUMMARY 1968-S2

The Rescheduled School Year

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Research Summary 1968-S2: THE RESCHEDULED SCHOOL YEAR
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Contents

	Page
Foreword	4
Overview	5
Background	6
Reasons for Considering a Rescheduled School Year	6
Plans for Rescheduling the School Year	8
Traditional Summer-School Plan	8
Rotating Four-Quarter Plan	10
Continuous Four-Quarter Plan	15
Extended School Year Plans	16
Continous School Year, or Continous Progress, Plan	16
Multiple Trails Plan	21
Modified Summer-School Plan	22
Trimester Plan	25
Quadrimester Plan	28
Extended K-12 Plan	31
A Broad Look at Extended School Year Programs	32
Other Plans for Rescheduling the School Year	35
Selected Bibliography	36

Foreword

Today, most of our nation's public elementary and secondary schools operate a school year of approximately 180 days. Many of these schools sit locked during the summer months, their facilities unused. Some teachers who stand in the classrooms during the school year spend their summer vacationing or attending school; others must seek temporary employment. Some pupils who study in the classrooms during the school year spend their summer attending camp or vacationing with their families; others face the hot summer with "nothing much to do."

Many observers view this situation as a great waste--a waste of costly facilities and equipment, a waste of valuable professional skills, and a waste of precious learning time. The present, prevalent system of a nine-month school year and a three-month vacation, some believe, is a remnant of an agricultural society and no longer meets the many needs of our urban society.

Through the years of this century, various plans have been designed, and in some instances implemented, which have attempted to remedy these wastes in facilities, skills, and time. Some plans have aimed primarily at effecting economies by using the school plant year-round but enrolling only three-fourths of the student body at any one time. Others, such as the summer school, have had mainly educational objectives. Recently, still other plans have been developed which aim at both educational and economic objectives. These plans achieve economies primarily through pupil acceleration. All of these plans have been widely discussed, their advantages and disadvantages listed, and their relative merits and demerits debated. Few have been widely adopted in our nation's schools.

This Summary of Research provides a broad look at plans for rescheduling the school year and summarizes such research as has come from experimentation with an "all-year school" or an "extended school year." It could not provide detailed information about all of the various plans which have been designed; readers interested in specific information should consult the sources listed in the bibliography. Nor has this Summary attempted to discuss the legal implications and the implications for state and federal fiscal aid which the various plans present.

Some plans may have been overlooked. Others, because of the wealth of available recent information concerning them, may appear to be emphasized in this Summary. These facts should not be interpreted as an evaluation of the relative merits of the plans, or as an endorsement or rejection of these plans by the NEA Research Division.

This Summary of Research was prepared by Sherrell E. Varner, Research Assistant.

GLEN ROBINSON
Director, Research Division

The Rescheduled School Year

Overview

Plans for rescheduling the school year from the present nine-month school/three-month vacation arrangement to another arrangement which would lengthen the school year or utilize school facilities year-round have been discussed for many years, for a variety of reasons.

In the early part of this century, vacation schools which provided primarily recreational activities were introduced. Later, these summer schools began to offer academic courses. Today, summer schools offer a variety of remedial, corrective, enrichment, and broadening activities, all directed toward the goal of providing more and better educational opportunities for all pupils.

Also in the early part of this century, economic objectives became important, and plans for utilizing school facilities year-round were considered. The most prominent of these was the Rotating Four-Quarter plan, which divides the school year into four 12-week quarters. Pupils attend three quarters on a rotating basis and vacation the fourth, so that at any one time, only three-fourths of the total student enrollment is in school. This plan was widely discussed between 1924 and 1931, and again between 1947 and 1953, times of growing enrollments and rising construction costs. The number of cities actually operating under this plan reached its peak around 1925, when 13 systems reportedly were using it. Today, some local systems and one state (Delaware) are again considering adoption of such a plan.

More recently designed plans for rescheduling the school year attempt to combine economic and educational objectives by extending the school year to 210 or more days and emphasizing pupil acceleration. When pupils accelerate, or save, the suggested one or two years in the traditional 13-year (K-12) program, school enrollment decreases, fewer facilities and staff are needed, and economies are achieved. The New York State Education Department, which has actively worked to design new plans, has developed such plans as Multiple Trails and Extended K-12 and has elaborated on older arrangements as the Trimester and Quadrimester.

It appears that too few experimental projects have been conducted to draw many conclusions about the individual plans. Interest has been increasing, however, for such reasons as growing construction costs, and rising school enrollments. Also contributing to this interest are needs to improve the economic and professional status of the teacher and to improve, enrich, and broaden educational opportunities for all pupils. Education News (May 1, 1968) reported that at least 60 school systems throughout the nation are now considering extended school year plans.

Many plans have been proposed, but only pilot projects will reveal whether the various plans have merit and are feasible for widespread adoption.

Background

The length of the school year and the corresponding length of the vacation period have varied from one section of the country to another throughout the years. In the early days of our nation's history, when life was predominantly rural, the length of the school year was based on the requirements of an agricultural economy. Because children were needed for farm work during the late spring, summer, and early fall, the school year was relatively short, and most pupils attended school during the winter months only. Very young children attended special summer schools because they were too young for farm work and because of poor road conditions in the winter months. Teachers were not employed for the full 12-month period. Generally, men taught during the winter, and women taught during the summer if school was conducted then.

During the years prior to 1840, city schools were conducted nearly all year. Buffalo operated its school system for 12 months; Baltimore and Cincinnati, for 11 months; New York, for 49 weeks; and Chicago, for 48 weeks. The school year usually was divided into four terms of 12 weeks each, with a one-week vacation between terms. Gradually this pattern was altered to provide a one-week vacation at Christmas, another at Easter, and two during the summer.

For 75 years following 1840, cities gradually shortened the school year and increased the vacation period. At the same time, rural areas gradually lengthened the school year, until it approximated the shortened year in the cities. By 1915, most of the nation's schools operated on a nine-month school year, although there were slight variations from one section of the country to another. Many communities operated a vacation school, a forerunner of the present summer school, but this session was not considered a part of the regular school year. The vacation school first provided only recreational activities, with academic courses offered in later years.

One plan for a rescheduled school year--the all-year school or rotating four-quarter plan--has been discussed and debated rather intensely in recent years. It was advocated during World War I and World War II, and during the years immediately following. A survey of literature indicates that the rotating four-quarter plan was widely considered and debated between 1924 and 1931, and again between 1947 and 1953, times of growing enrollments and rising school construction costs.

Plans providing a longer school year or year-round utilization of the school are once again of interest. The desire for improved educational opportunities has been added to the economy objective in sustaining interest in the various plans.

This summary of research is intended to provide a broad look at the various designs for a rescheduled school year. Because little research per se has been reported, this summary outlines the operation, the advantages, and the disadvantages of the many plans which have been developed and, in a few instances, implemented. It does not discuss the many legal implications of the plans, nor the implications for state or federal fiscal aid.

Reasons for Considering a Rescheduled School Year

Plans for an extended school year or for year-round utilization of the school have been considered for a variety of reasons. The specific plan or plans studied have generally been determined by the circumstances in the community and the goals to be achieved. In the early years, economic pressures (e.g., lack of adequate facilities and funds to construct them) motivated interest in year-round utilization of the school plant. While the same economic pressures are present today, a variety of educational needs have also motivated interest in extended school year plans which might provide more and better education and perhaps save money at the same time.

The economy objective has probably been the most prominent reason for interest in year-round utilization of the school plant (i.e., the rotating four-quarter plan). Proponents argue that most communities could realize considerable savings by fully utilizing existing school buildings and other facilities instead of constructing new plants to accommodate rising school enrollments.

Economy advocates also argue that in addition to savings on building costs, economy could be realized on debt service and on the cost of fuel, light, power, maintenance, insurance, and state tax on bonds. Theoretically, fewer teachers would be needed to staff new schools, since employment would be on a year-round basis. Money saved from additional teachers' salaries could be used to raise the salaries of those teachers already in the system.

A second argument in support of a longer school year or year-round school is the improvement in teacher status. Proponents claim not only that savings would help to increase teachers' economic status, but also that full-year contracts would eliminate their need to seek temporary summer employment. In addition, several extended school year plans would give teachers more time in which to work on curriculum

revision, to aid individual students, and the like. This would elevate teachers' professional status and might improve teacher morale.

The need to deal with the teacher shortage has been a third reason for considering rescheduling the school year. Proponents argue that the demand for teachers could be reduced somewhat if teachers already employed were to serve on a year-round basis. If pupils were accelerated, still fewer teachers would be required. This might reduce the need to employ unqualified, emergency teachers.

A fourth argument has been the desire for improved and enriched education for all pupils. Proponents assert that the various plans for an extended school year can provide a better basic education and time for remediation and enrichment, by providing more in-class time, more opportunities for short make-up sessions, and the like, and by enabling (and in some instances forcing) curriculum revision. Some proponents argue that a longer school year is necessary by mere reasons of increased knowledge and the broader demands our society is making on today's youth.

A fifth reason is the need for pupil acceleration. This factor is intertwined with economic objectives, but often has stood alone as an argument for a rescheduled school year.

For example, Turbeville (62)1/ asserts that most young people want to get married, have a family, and earn a living. Teenagers have the biological drive toward early marriage, but lack emotional maturity and economic self-sufficiency. Turbeville suggests that a 12-month school year plan would speed the educational process, thereby enabling youths to start earning their own way much earlier in life. Because emotional maturity usually comes with experience and increased responsibility, rather than after a certain number of years have been spent in school, pupil acceleration appears to be in harmony with the needs of youth.

Moon (38:7) reported the arguments for acceleration given by Harold Spears, superintendent of schools in San Francisco. Spears predicts that within approximately five years, all children will be attending preschool at the age of three. This, together with the arguments that today's students are getting more education per school day, that such nonschool educational experiences as travel and exposure to mass media are advancing the educational level of pupils, and that subjects are being introduced to pupils earlier, makes pupil acceleration of one year a favorable alternative. Acceleration would also ease the growing school finance problem. Pupils would be able to enter technical schools or college earlier. Spears notes, however, that elimination of one grade is not sufficient; curriculum revision must be an integral part of any plan for pupil acceleration.

A final argument for a longer school year or year-round school is the need to keep youth busy and off the streets during the summer months and to help youth make productive use of otherwise wasted time. The picture of a vacation lad wending his way to the fishing hole no longer portrays life in our urban society. Today's youth more often faces steaming asphalt streets at worst, or two weeks at summer camp at best. Proponents believe that summer attendance at school could substantially reduce juvenile delinquency.

In spite of these advantages claimed for rescheduled school year plans, experimentation and adoption has not been widespread. Surveys have generally shown major changes in the school year to be unpopular among teachers, administrators, and parents.

A 1964 national survey asked school administrators if they would favor an all-year school arrangement, with some pupils on vacation each quarter and teachers on duty all year, except for a two- or three-week vacation. Two out of three administrators responded negatively, citing most often as their reason for opposition the teacher's need for an extended vacation. (45)

Approximately three out of four (76 percent) parents responding to a survey of reactions to changes in the basic organization of the school year opposed the year-round school arrangement (i.e., the rotating four-quarter plan). Most objected on the grounds that winter is no time for a child's vacation. (2:80)

Frost (24) reported in 1967 the results of a Gallup poll of parents' opinions on the school year. Nearly 7 in 10 (68 percent) parents of school children responding considered a reduction in the summer vacation a poor idea. Among 13 suggested changes in the school year, "reduce summer vacation to four weeks" appealed most to only 4 percent of the respondents.

It has been predicted that a rotating four-quarter plan, with four school entrance dates scattered throughout the year, would not appeal to such groups as clothing and shoe salesmen, whose business is geared to fall school entrance.

Sometimes resistance has been community-wide. Bienenstok (5) described an example of resistance to innovation, particularly to rescheduling the school year, in a suburban community in the New York metropolitan area.

1/ Numbers in parentheses refer to items in the bibliography at the end of this Summary.

A recent survey of public and private high-school principals asked, "What new approach should be made to facilitate the articulation of high school and college students?" One-fourth of the respondents advocated the development of individualized student programs (e.g., nongraded); 29 percent favored summer programs which would enable pupil acceleration; and 27 percent favored a total rescheduling of the school year (e.g., trimester). (60:102)

A random sample of Polk County, Florida, teachers, parents, and pupils was asked which one of seven plans for rescheduling the school year they favored. (22:55) Results are given below:

Plan	Teachers	Parents	Pupils
1. Present 180-day school year	16.2%	20.1%	18.4%
2. Present program plus voluntary summer session	17.9	23.1	31.4
3. Present program plus summer session, voluntary for some, mandatory for students who have failed	60.9	47.1	36.7
4. Rotating four-quarter plan, with one-fourth of enrollment on vacation each quarter	1.6	1.7	3.5
5. Continuous four-quarter, with two years of acceleration in 12 ...	1.6	4.8	4.2
6. Rotating trimester plan, with one-third of enrollment on vacation each trimester ..	0.6	1.2	3.3
7. Continuous trimester, with two years of acceleration in 12	1.2	2.0	2.5

Results of this survey showed overwhelming preference for some sort of summer school.

Plans for Rescheduling the School Year

In recent years many persons--from parents to national political leaders--have urged that schools be open year-round, becoming multipurpose community centers in the evenings, on week ends, and during the summer months. This summary concerns only the extended use of school facilities as schools for children in grades K-12. Likewise, this summary concerns a longer school day only as it becomes a factor in time equalization in rescheduled school year plans.

A distinction should be made between what has traditionally been termed the "all-year school" or the "year-round school," and other plans for a rescheduled school year. The term "year-round school" has generally referred to the rotating four-quarter plan, which utilizes school facilities year-round but does not provide more days of education. The term has occasionally been applied to plans for a summer session added to the traditional 180-day school year and to the continuous four-quarter plan, both of which often aim for pupil acceleration as well as year-round utilization of the school. Other rescheduling plans, specifically those which provide for a longer school year, aim primarily at improved education and pupil acceleration, with other economy objectives important, but sometimes secondary, goals. This summary has avoided using the term "year-round school" wherever possible in order to reduce confusion.

Because little research has been reported, such experiments as have been conducted are reported along with descriptions of the various plans.

Traditional Summer-School Plan

Conducting school during the summer months is quite common throughout the country (e.g., 43). There have been four main purposes for conducting summer sessions: recreation, makeup, remediation, and enrichment. In recent years, pupil acceleration has also become a goal; this type of summer program will be described at a later point.

Summer recreation programs, offering activities such as individual and group sports, crafts, and the like, are designed to help children and youth use their leisure wisely. The makeup program enables pupils to repeat courses failed during the regular school year. The summer course is usually an abbreviated version of a full term's work. The remedial program is designed to give pupils who have difficulty in specific areas, such as reading, additional assistance so that they may progress through subsequent grades or courses more smoothly. The summer enrichment program enables pupils to take courses that either are not normally offered during the regular school year or will not fit into their regular school year schedules.

Most summer programs last six or seven weeks. Usually pupil attendance is voluntary, but it has been suggested that attendance be mandatory for those pupils who have failed grades or courses or who require remedial assistance. The summer session may be financed by the school district or by tuition or fees, or by a combination of the two.

The objectives of the summer program are primarily educational, but it has been suggested that economies will be obtained if

remedial programs result in fewer pupil failures (22).

Estimated costs for operating a summer program have ranged from 4 to 5 percent to 17 to 18 percent of the annual budget (51:15-16).

The Florida Educational Research and Development Council studied the feasibility of adopting two variations of a summer program in Polk County, Florida (22). The Council concluded that a completely voluntary, seven-week summer session which offered makeup, enrichment, and acceleration courses without cost to pupils would result in a 5.55 percent increase in net expenditures. A similar program, but compulsory for nonpromoted pupils and voluntary for all others, would result in an estimated 5.70 percent increase in net expenditures. (22:44)

After studying these and six other school year plans, including the rotating four-quarter, the trimester, and the rotating trimester plans, the Florida Council recommended either of the summer-school plans as best if the school board wished to make better use of the school plant and school personnel without making major changes in curriculum and administrative organization. (22:63)

Some of the advantages and disadvantages of the summer-school plan may be summarized as follows:

Advantages

1. The plan offers increased educational opportunities without requiring major changes in the curriculum and school organization.

2. Retarded pupils have an opportunity for special assistance and training. This will aid their further development and may decrease pupil grade failure, thus saving the cost of reteaching nonpromoted pupils.

3. All pupils may have the benefit of guided leisure time.

4. All pupils may benefit from having an opportunity to take courses not normally offered during the regular school year or courses which might not fit into their regular school year schedules.

5. Teachers may be employed on a year-round basis, thus utilizing their resources for professional work throughout the year and also improving their economic status.

6. There is little difficulty in maintaining the school physical plant, since the entire plant is not required for summer classes.

7. In most instances, participation in summer school is voluntary and does not interfere with family summer vacations.

Disadvantages

1. The summer session increases total educational costs.

2. In most instances the program is optional, and only a small percentage of the school enrollment may choose to participate. Thus, the return on the added investment may be too small to make the program financially feasible.

3. Parents may be releasing to the school some functions of child training and care which might better be retained in the home.

Extended Teacher Contracts

Some school systems are beginning to offer extended teacher contracts, with commensurate pay. Although not specifically a plan for rescheduling the school year, the 11- or 12-month teacher contract is sometimes used in connection with the summer school, as it is in Rochester, Minnesota. (41)

Extended contracts may be offered to all teachers, to a certain number or percentage of teachers, or to all teachers who meet certain requirements, such as a certain number of years of service in the school system. The longer contract may be required of all teachers, but in most instances it is voluntary. These contracts are in contrast to the common practice of employing individual teachers to teach in summer-school programs.

Teacher activities during the summer months vary. For example, teachers in Rochester, Minnesota, may elect to: (a) teach in summer school; (b) work in the community recreation program; (c) participate in workshops, curriculum studies, or seminars; (d) work on local studies and research projects; (e) attend summer school; (f) request educational travel; (g) conduct individual research projects. Length of service requirements restrict eligibility for summer school and travel requests. (41:3)

Among those school systems known to offer extended teacher contracts are Glencoe, Illinois; Lakewood, Ohio; Milwaukie, Oregon; Stevenson, Washington (41); Forest Hills, Michigan (36); and Oil City, Pennsylvania (48).

Rotating Four-Quarter Plan

The Plan

For many years, the most prominent all-year school plan was the rotating, or staggered, four-quarter plan. This arrangement divides the school year into four equal quarters of approximately 12 weeks each. Each pupil attends three consecutive quarters and vacations the fourth. Thus, each pupil spends the same amount of time attending school as under the traditional nine-month school year arrangement, but the school is in operation throughout the entire year. Vacation periods are staggered throughout the year, so that at any time, three-fourths of the entire student enrollment is attending school and the remaining one-fourth is on vacation. Figure I illustrates the operation of this plan. It is generally recommended that pupils enter school in the quarter in which their birth dates fall. For example, if the fall quarter runs from September through November, all pupils born in those months enter first grade in September and continue to attend classes from fall through spring, and vacation in summer, throughout their years in school. Most commonly recommended is a 12-week quarter with one week of vacation between quarters.

There are several slightly different variations of this plan. The so-called "pure" plan allows pupils to attend school only for three quarters, while teachers are required to teach all four quarters. Another variation makes the fourth quarter required for teachers but optional for pupils, while a third variation makes the fourth quarter optional for both pupils and teachers. Although distinctions are sometimes unclear, the arrangement which liberally allows pupils to attend the fourth quarter is discussed later as the continuous four-quarter plan.

The primary objective of the rotating four-quarter plan is economy. Theoretically, this arrangement would save about 25 percent in capital outlay for new buildings by fully utilizing existing facilities. Proponents contend that this plan would also reduce the required teaching force by 25 percent, since only three-fourths of the student enrollment would be in school at any one time. At the same time, it would increase by approximately 20 percent the annual salaries of those teachers employed for all four quarters.

The rotating four-quarter plan does have an inherent administrative problem. It requires a minimum school enrollment. The Florida State Department of Education described this problem (23:2).

Under this arrangement, each school actually operates as four individual schools, each with a different starting date, and thus each grade within the school operates as four sections. Let us assume that an elementary school enrolling grades 1-6 now employs 12 teachers, or two teachers per grade, and each teacher has 30 pupils, making a total enrollment of 360 pupils. Under the rotating four-quarter plan, the school would be divided into four smaller schools, each with three teachers and 90 pupils, or 15 pupils per grade. To maintain a pupil-teacher ratio of 30:1, each teacher would be required to teach two grades in one classroom.

FIGURE I.--OPERATION OF THE ROTATING FOUR-QUARTER PLAN FOR RESCHEDULING THE SCHOOL YEAR

Pupil attendance group*	Attendance quarters			
	Fall	Winter	Spring	Summer
Group A	Vacation	School	School	School
Group B	School	Vacation	School	School
Group C	School	School	Vacation	School
Group D	School	School	School	Vacation

*Each group comprises one-fourth of the entire student enrollment.

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Another alternative would be for each teacher to have two sections of pupils, in the same grade but at different stages in their school years, in each class. Considering the desire for individualized instruction and the trend to eliminate combination classes, these alternatives may be thought undesirable. (An account of the Aliquippa, Pa., rotating four-quarter experiment reportedly indicated that having as many as three sections, at different points in their grade instruction, per classroom was not a serious problem if plans for classroom grouping had been made (8:8).)

If it is thought desirable to have one teacher per grade section and to maintain a class size of approximately 30 pupils, an elementary school must enroll 720 pupils, with an equal number of pupils enrolled at each grade level, and must employ 24 teachers. This condition does not often exist.

Likewise, the Florida State Department of Education estimated that in order to offer a school program of minimum quantity and quality and to maintain a pupil-teacher ratio of 30:1, a junior high school must enroll 1,500 pupils. The comparable figure for the senior high school would be 2,400 pupils.

A Cincinnati study also dealt with these problems of school enrollment, combination classes, and fluctuating class size (8:42-56).

A third solution to this minimum school enrollment requirement has been proposed. Attendance quarters might be assigned by grade level, so that all pupils in the same grade would be in school during the same three quarters. This would reduce or eliminate the need for several sections of one grade or combination classes, but might create other problems. It could disallow the assignment of all children in the same family to the same attendance quarters, thus splitting families, and it could make efficient and economic bus routing difficult.

Experimentation

It appears that the rotating four-quarter plan was first put into operation in Bluffton, Indiana, in 1904 (discontinued in 1915). Ten cities reportedly were using the plan by 1923, and the number apparently reached its peak of 13 in 1925. (8:4) Between 1904 and 1950, the rotating four-quarter plan reportedly was initiated and discontinued in the following cities: Bluffton and Gary, Indiana; Mason City, Iowa; Eveleth, Minnesota; Omaha, Nebraska; Albuquerque, New Mexico; Ardmore and Tulsa, Oklahoma; Ambridge and Aliquippa, Pennsylvania; and Amarillo and El Paso, Texas (21); and in Bayonne, New Jersey, and Minot, North Dakota (8:4). By 1950, only Chattanooga, Tennessee, was using the plan, and by 1956, no cities were known to be operating under the plan.

The Omaha four-quarter plan operated from 1918 until 1940 in Omaha Technical High School. The quarters were originally 12 weeks long, but the summer quarter was shortened to 10 weeks in the 1930's. The school was reorganized every 12 weeks, and one class was graduated every quarter. It was reported that this frequent school reorganization did not result in time loss. The holding power of the school was increased, and the plan reportedly was popular with parents, teachers, and businessmen. (8:13)

Two of the better-known experiments were those in Ambridge and Aliquippa, Pennsylvania.

The plan was adopted in Ambridge in 1930 to handle a large student enrollment while new schools were being constructed. According to the Ambridge school superintendent, the program was unpopular and extremely difficult to administer, and it was discontinued (in 1936) as soon as additional schools were completed. (28:23)

In Aliquippa the plan was adopted in 1928 in order to avoid investment in additional school buildings. Attendance quarters were arbitrarily assigned, but requests for changes were considered. A new first-grade section was enrolled each quarter, and there were four promotion dates. Some pupils were allowed to attend all four quarters, but were not allowed to accelerate more than one year. Pupils who had failed repeated the quarter which they had failed. Quarters overlapped seasons of the year. (8)

Reports of this experiment indicate that the plan was not detrimental to the pupils' achievement. Nor were fears that pupil achievement and attendance would suffer during the summer months confirmed, at least during the first five years of operation. The January-April quarter showed the fewest pupil failures, while the October-January quarter showed the most failures. First-year attendance was highest during the July-October quarter and lowest during the October-January quarter. (8)

From the standpoint of economy, the experiment was considered successful. Savings on capital outlay for new schools and related savings (especially debt service) resulted in an estimated saving of $282,059 during a seven-year period, according to the superintendent, H. R. Vanderslice. (54)

Vanderslice also explained that since most teachers chose to work 12 months, the school board decided to reduce teachers' salaries by 5 percent. This resulted in a saving of $69,200 during the five-month period, and a saving of $96,880 during the seven-year period.

At least during the first year of operation, however, the total 12-month salary was 28 percent higher than the nine-month total.

The disadvantages of the Aliquippa experiment were soon felt. According to Hartsell (28), the disadvantages were these: (a) Building maintenance and repair without interference with school sessions was virtually impossible. (b) Parents objected to non-summer vacations. (c) Permitting teachers to choose their vacation quarter resulted in a constant changing of classrooms and teachers. (d) The summer quarter showed a let-down in work by both pupils and teachers. According to another source (8:8), in small schools there were often as many as three groups at different points in their grade instruction in one classroom. This problem was apparently not as serious if plans had been made for classroom grouping.

Although it took some years to remedy the crisis that had precipitated adoption of the plan, the rotating four-quarter plan in Aliquippa was eventually discontinued. The difficulty in maintaining the physical plant and the increased maintenance costs, which somewhat offset economies, were two major reasons for abandoning it. Additional problems were the difficulty in assigning vacation periods, the increased administrative problems and supervisory tasks, and the increased paperwork. By 1938, Aliquippa had decided to return to the traditional nine-month school year and to construct the facilities required under the former system.

Since World War II, many communities have studied the feasibility of adopting the rotating four-quarter plan. Among those communities known to have made such studies are Long Beach Public Schools, Sacramento Unified District, Contra Costa Taxpayers Association, Los Angeles City School District (1954), San Mateo County, and Redwood City (1960), California; Fairfield, Connecticut (1952); Polk County, Florida (1966) and the Florida State Department of Education (1957); Atlanta (1957), DeKalb County, and Fulton County, Georgia; Montgomery County, Maryland (1961); Cleveland (1957-58) and Cincinnati (1958), Ohio; South Carolina State Department of Education; and Dallas and Houston School Districts, Texas (8, 9, 37, 23, 61).

In recent years, the rotating four-quarter plan has been adopted, or seriously considered, in Del Campo High School, California; Atlanta, Georgia; and the state of Delaware.

The Del Campo High School project proposed to divide the school calendar into four quarters of 54-59 days each, with a three-week vacation between the summer and fall quarters. Most pupils were to attend three quarters, but some would be able to attend all four. (2) The project, backed by $145,000 from the California state legislature, was to have begun in May 1966. At that time, the first summer quarter was postponed a year for lack of student interest. By November 1966, the San Juan School Board had decided to abandon the project entirely, for reasons of insufficient funds, lack of student interest, and poor support from parents (52).

Contingent upon the appropriation by the Georgia state legislature of a requested $2,000,000 for this and other pilot projects, high schools in eight metropolitan Atlanta school systems will be operating on a four-quarter plan beginning in September 1968. The systems are Atlanta, Clayton County, Cobb County, Decatur, DeKalb County, Fulton County, Gwinnett County, and Marietta. (26) The school year will be divided into 11- or 12-week quarters, each a full academic term. Class periods will remain the same length, but the school day will be extended to 10 periods. Student movement will be similar to the college arrangement, with some Saturday classes, some days when students have no classes, and students coming to and leaving school at various times during the day. (55) Reportedly, during the first year of operation, students will be required to attend all of the first three quarters. The fourth quarter will be optional, and students may then choose which two of the next three quarters they wish to attend. Students may also elect to graduate from high school in three years by attending all four quarters (26). One-third of a unit of credit may be earned each quarter (17). The project's objective is curriculum improvement rather than economy. It is hoped that the arrangement will lead to more flexibility in course sequences and in student program planning and scheduling (26).

The Delaware State Board of Education has authorized a pilot project to begin in the summer of 1968. A 212-day school year is to be divided into four quarters, with students attending three or all four quarters on a rotating basis. If this summer project and the project tentatively scheduled to begin in September 1968 are successful, the State Board may act to implement the program throughout Delaware in 1969-70. Reasons for the Board action were rising classroom construction costs and growing student population, and the increasing competition for academic progress. (56)

Studies

In 1952, the Fairfield, Connecticut, Citizens School Study Council (54:84) reported that a needed $5,000,000 building program would cost taxpayers $368,750 a year for interest, amortization, and operation and maintenance of new buildings. The cost of operating the schools on the rotating four-quarter plan (including air conditioning) was estimated at $81,900 a

year, a savings of $286,850 a year during the period the building program costs were being repaid.

Not all studies indicate a saving under the four-quarter plan. In 1957, Atlanta concluded that the cost of operating a four-quarter plan would be greater than the cost of building new schools. Although operation costs, fixed charges, and teacher retirement benefits would be less under the four-quarter plan and new plants would not have to be constructed, maintenance and instruction would cost more and air conditioning would have to be installed. Thus, the Atlanta study found that while operation of the four-quarter plan would cost $8,804,000, the cost of continuing with the traditional school year and constructing required new facilities would total $7,617,000. (54:82)

Other cost analyses which showed the four-quarter plan to cost more than the traditional plan plus new buildings were: Fulton County, Georgia, $2,098,800 against $2,772,500 for the 12-month plan; DeKalb County, Georgia, $1,714,000 against $2,280,000 for the 12-month plan (54:82).

Los Angeles conducted an extensive study of the four-quarter plan in 1954. The conclusion was that the all-year school was too costly, met with too much public resistance, and created too many administrative problems to make adoption feasible (32, 33, 34).

The Florida State Department of Education also concluded that the theoretical economies of the rotating four-quarter plan would not obtain and that the plan would create additional problems (23). The Department estimated an annual state-wide saving of $3,882,400 on depreciation and new buildings to be constructed in the future, but it also anticipated the following new expenditures, which would offset the amount saved:

1. The quadrupled number of registrations, promotions, graduations, and examinations would require more staff members and at least <u>double the administrative costs</u> of the large schools.

2. The inevitable <u>reduction in pupil-teacher ratio would increase school costs</u>.

3. The decreased density of pupils transported by bus would lead to <u>increased per-pupil transportation costs</u>.

4. The need for air conditioning would result in <u>increased additional capital outlay and operating costs</u>.

Other anticipated problems were lack of time for building repairs and thorough bus overhaul; split families; lack of time for teachers to attend summer school; decline in teacher health; lack of time for teacher pre- and post-school planning; and rise in juvenile delinquency, because teachers would be unavailable to direct extended summer-school programs, or their equivalent, for pupils on vacation.

A 1958 study of the feasibility of adopting the rotating four-quarter plan in Cincinnati also found that economies would not obtain (8:73-76). The study concluded that although the plan would result in savings on capital outlay for buildings, the projected one-third increase in building accommodation was hardly obtainable. The plan would generally result in increased maintenance and operation costs, and "a substantial portion, if not all, of the economy attained...would result from a reduction in the number of days each pupil attended school." Other problems predicted were fluctuating class sizes, combination classes, difficult pupil transfers, and lower quality of performance in extracurricular activities.

In July 1960, the Citizens' Committee of the Sequoia Union High School District, California, (9) reported that costs for operating the four-quarter plan in 1959-60 would total $6,006,486, but for the current plan, $4,782,952; on an ADA basis, $549.94 under a four-quarter plan, and $560.52 under the current plan. The increase under the four-quarter plan included:

1. Administration: 8% increase to compensate for additional staff to cover recent vacation allowances

2a. Salaries of certificated personnel: 33% increase to allow for additonal teaching staff for 28% more pupils plus 5% allowance for an increased number of teachers required to staff small classes

2b. Other salaries: 28% increase to provide 28% more pupils with instructional materials (although the quantity of instructional materials used at any given time may be less, the accelerated rate of replacement will offset any savings).

3. Auxiliary services: 8% increase (same as 1)

4, 5. Operation and maintenance: 8% increase to cover an increase in custodial work, repairs and maintenance, and more overtime and contract work during week ends and holidays

6. Fixed charges: 20% increase (a selected percentage between 8% and 33%) to cover increased cost of staff retirement contributions for an increased staff (items 2a, 2b, and 3) but with recognition that other fixed charges, such as insurance, will not be materially increased.

7. Transportation: 50% increase (28% more pupils to transport since pupils will be residing at greater distances from schools; 22% to compensate for smaller bus loads and the providing of bus service an additonal one-fourth of the year).

The same committee reported that the per-pupil cost for new construction would be $80 under the present plan and $63.23 under the four-quarter plan.

In June 1961, the superintendent of schools in Montgomery County, Maryland, presented a 12-4 plan of year-round school to the school board for adoption (37). Under this plan, the schools would operate for four quarters on a year-round basis. Through a change in enrollment dates and a staggered attendance pattern, each pupil would attend three 12-week quarters and have a four-week vacation between quarters. The school board rejected the plan.

In 1966, the Florida Educational Research and Development Council conducted a feasibility study of seven rescheduled school year plans for Polk County, Florida (22). The Council concluded that the rotating four-quarter plan would result in a 25.21 percent increase in net expenditures.

Some of the advantages and disadvantages of the rotating four-quarter plan may be summarized:

Advantages

1. The school plant and other equipment are not idle for one-fourth of the year.

2. Fewer school buildings are required, thus effecting economies in school construction, debt service, and insurance premiums.

3. Theoretically, the same school plant, staffed by the same number of personnel, provides for the education of 25 percent more pupils.

4. It eliminates the need for double sessions in overcrowded school systems.

5. Fewer books, less equipment, and the like are needed at any one time.

6. The pupil's work is evaluated more often.

7. A pupil who has failed may repeat only the quarter failed rather than the entire semester or year.

8. The pupil who has been absent for an extended time may re-enroll in the quarter or quarters missed, instead of making up the entire semester or year.

9. Teacher status is raised. Teachers receive more pay if they work all four quarters, and need not seek summer employment outside the school system.

10. Fewer teachers are required, thus relieving pressure of the teacher shortage.

11. More pupils may be able to find vacation employment, because only one-fourth as many youth are seeking jobs at any one time.

12. More pupils may be able to participate in extracurricular activities.

Disadvantages

1. Many studies have shown that the cost of operating a rotating four-quarter school is greater than the cost of constructing and operating a traditional nine- or 10-month school.

2. In many sections of the country, summer attendance would require air-conditioned schools, thus adding to costs.

3. Maintenance of the school plant without disturbing school sessions is difficult because schools are constantly in session. Major cleaning and repair of buildings may have to be done at night, or on week ends, thus requiring overtime pay and adding to costs.

4. Maintenance costs necessarily increase because the plant is in steady use.

5. Accelerated replacement of textbooks and other instructional materials would offset any savings resulting from a decrease in the number in use at any one time.

6. The burden on administration and supervision is greatly increased; additional staff may be needed to handle quarterly enrollments, scheduling, graduation ceremonies, and the like. Extended vacations for such key staff as principals might be difficult to arrange.

7. A minimum school enrollment must be maintained so that each class has a teacher and so that class sizes may be fairly uniform. This is difficult, and combination classes and fluctuating class sizes may result.

8. Before the plan could become self-sustaining, one-fourth of the students would have to attend school continuously for 18 months.

9. Time is wasted when pupils must adjust to new classmates, schedules, and teachers several times a year.

10. Pupil transfers to and from traditional nine- and 10-month schools in other districts are difficult.

11. Coordinating and planning for extracurricular activities, which are often geared to seasons (e.g., sports, music, drama), are difficult. The quality of performance in extracurricular activities may decrease.

12. Because school busses are in use year-round, their maintenance and overhaul is difficult.

13. Because the density of pupils from any given area is reduced, the per-pupil transportation costs increase. (The countering argument is that all children from one neighborhood may be assigned the same schedule.)

14. Teachers' mental and physical health may not withstand the pressure of year-round employment.

15. Summer study and travel for teachers would be eliminated. (The countering argument is that teachers may be given more sabbatical leaves.)

16. Many parents dislike the thought of children taking vacation during unconventional seasons of the year. Family vacations may be disrupted.

17. It is thought that winter is no time for a child's vacation. For many pupils, summer camp and other experiences would be eliminated. (The countering arguments are: the child would be able to participate in other seasonal activities, such as winter sports, or, pupil vacation quarters may change from year to year.[2/] The latter, however, would require pupils to be in attendance over more than three consecutive quarters.)

18. Truancy and delinquency might increase since the one-fourth of pupils on vacation might tend to influence those in school to skip classes. Also, teachers would not be available to conduct the equivalent of extended summer sessions for pupils on vacation.

19. Community agencies which "gear up" for summer programs and services would have to maintain their programs year-round, thus adding to their costs.

Most communities which have operated under the rotating four-quarter plan or have studied its feasibility have concluded that its disadvantages outweigh its advantages. Other systems are looking at modifications of the plan which are more similar to a traditional nine-month school year, divided into three quarters, plus a voluntary summer fourth quarter.

2/ For example, see: Adams, Andrew. "Look Hard at This Year-Round School Plan." American School Board Journal 156: 11-15, 31; July 1968.

Continuous Four-Quarter Plan

The continuous four-quarter plan, as here defined, differs from the rotating four-quarter plan in that attendance during the fourth quarter is encouraged. It, too, has economy as its primary objective. Proponents of this plan argue that above-average ability pupils could easily accelerate under this plan, and that pupils who failed could repeat the quarter they had failed without falling behind their grade groups. Gifted pupils could complete 12 years of schooling in nine years, while less gifted pupils, and even those who had failed, could complete their elementary-secondary education in the traditional 12-year period. Under the voluntary arrangement, pupils who wish to attend school year-round might do so, while those who strongly object to attending school throughout the year can attend the traditional nine-month term.

A compulsory four-quarter plan has also been suggested. In either arrangement, school facilities would be operated year-round.

The voluntary plan has operated in Newark, New Jersey, and in Nashville, Tennessee. It appears that both plans were adopted to meet both economy and educational objectives.

The Newark plan operated from 1912 until the early 1930's; in 1915, 15 all-year schools were in operation, including eight elementary, one junior high, one senior high, and five vocational and special schools. The voluntary summer quarter was an extension of the school year. The purpose of the program was to reduce retardation and withdrawal among pupils of poor, foreign-born parents. Pupils were given one-third of a year credit for summer participation (8:16-17), but, according to the Newark school superintendent, acceleration was not appropriate for participating students (28).

The Nashville plan operated from 1922 until 1932 or 1933, with 64 percent pupil participation and 86 percent teacher participation (8:15-16).

Schoenfeld and Schmitz (51:13-15; 22-34) reported some results and conclusions of these two experiments. Summer, or fourth quarter, attendance in Newark was as high as 75 percent, while enrollment in Nashville fluctuated around 50 percent, with attendance in Negro schools higher than that in white schools. (51) Neither Nashville nor Newark pupils showed adverse physical effects. Newark pupils showed no loss of mental health, and reports of the Nashville experiment were conflicting. The Nashville program was regarded unfavorably. The Newark program was thought to be educationally sucessful, but was abandoned at the beginning of the depression of the 1930's as a means of reducing costs. Schoenfeld and Schmitz cited a Newark

study which considered the year-round attendance an important influence in keeping many children out of mischief during the summer.

The Florida Educational Research and Development Council studied the feasibility of adopting a plan for four quarters of continuous study in Polk County, Florida (22:13-14; 36-38). The Council suggested four 11-week quarters, with pupils required to attend all four quarters. It provided a six-week summer vacation in addition to a two-week Christmas vacation and a 220-day school year. The plan was not described in detail, but the Council suggested that one year of schooling could be saved at both the elementary (grades 1-6) and secondary (grades 7-12) levels, thus enabling a pupil to complete 12 years of schooling in 10 years. Theoretically, school enrollment would be decreased by 16.7 percent, and savings on building costs would begin to accrue in five years. The Council estimated an annual immediate increase in expenditures of approximately 14.72 percent. In five years this annual increase would be cut in half, and by the end of the 10-year transition period, net expenditures would be decreased by approximately 4.23 percent. It was suggested that school entrance age be raised one year, so that graduating seniors would be only one year, rather than two years, younger than the traditional graduation age.

Extended School Year Plans

The plans previously discussed have aimed primarily at better utilization of school facilities (e.g., the rotating four-quarter plan), at better utilization of school personnel (e.g., extended teacher contracts) or at pupil enrichment (e.g., the traditional summer-school plan). Other plans, designed for the greatest part by the New York State Department of Education, attempt to combine these objectives with another major goal--pupil acceleration.

Impetus for the work of the New York State Department of Education came from legislation enacted in April 1963 by the state of New York. This legislation charged the Department of Education to

> design demonstration programs and conduct experimentation to discover the educational, social and other impacts of rescheduling the school year from the present thirteen-year system [K-12] to a twelve- or eleven-year system but still providing as many instructional hours or more than are now available....

Over a three-year period (1963-64 through 1966-67) the New York State Department of Education designed at least six distinct plans for what was termed an "extended school year." Pupil acceleration and economy were major goals, but "better education" (i.e., pupil remediation, enrichment, and the like) was also important in the development of the plans.

The six basic plans are continuous school year or continuous progress, multiple trails, modified summer school, trimester, quadrimester, and extended K-12. Figure II summarizes the features of these plans.

Although the operating procedures vary considerably, these six plans have several common features, some of which differentiate them from plans previously discussed (particularly the rotating four-quarter plan). These extended school year plans also seek to make better use of facilities, teacher time, and pupil time, but the idea is implemented in a totally different way.

1. Extended school year plans are based on a lengthened school year of 210 or more days.

2. Designs for the extended school year do not eliminate the traditional summer vacation, although they do shorten it.

3. There is no staggering of attendance periods, and pupils are not cycled through the school year.

4. The school day need not be lengthened.

5. All pupils attend school every day. (53:90-91)

Other features of the extended school year plans require fundamental changes in educational philosophy, as well as in school administration and patterns of family and community life. Requiring much more than the addition of hours or days, the extended school year designs also involve major changes in the curriculum. Basic to several of the plans is implementation of the concept of continuous progress. Others require revision of course outlines and presentation sequences to fit into trimester or quadrimester time blocks. The modified summer session plan requires that a full, traditional semester course be compacted into a six- or seven-week time span.

Continuous School Year, or Continuous Progress, Plan

The Plan

Based on the concept of continuous progress, this plan proposes a longer school year, with pupils completing one grade's work in the traditional 180 days and then spending the remaining time on the next grade's work. There are no excessive time breaks during the year, and

no need for terms. The length of the extended year depends on the number of grades included in the plan and the corresponding number of years over which one year of schooling is to be saved. An increase in the number of grades included in the plan will decrease the number of school days required to equalize time. If grades 1-6 are included in the plan, and one year out of six is to be saved (or eliminated), the extended school year will be approximately 216 days long. Including grades K-6 in the plan, with one year saved out of seven, would require a 210-day school year. A 203-day year would be necessary to save one year out of eight.

Suppose a school system decided to implement the continuous school year plan in grades K-6, saving one year of schooling out of seven. Pupils in kindergarten would complete the traditional kindergarten program in 180 days and spend the remaining 30 days of the 210-day school year on grade 1 work. During the next year, the pupils would spend 150 days on the remaining grade 1 work and the remaining 60 days on grade 2 work. The pupils would progress in this manner until the end of their sixth extended school year, by which time they would have completed seven years' work. With the curriculum so reorganized, each year would be termed a "learning level" rather than a "grade level." For example, the pupil beginning his third year in school would be entering learning level 3 rather than grade 2. In the course of completing the curriculum in the traditional K-6 program, the pupil would complete six learning levels rather than seven grades. Figure III shows how this plan would operate.

The calendar for the continuous school year plan provides a six- or seven-week summer vacation, plus normal Christmas and spring recesses, in addition to the extended school year. It has been suggested that "with true continuous progress the vacation issue can be resolved in any school by phasing in long absent pupils to class sections where they can find success." (60:21)

This plan may be implemented either totally or gradually during the five- or six-year transition period. Total implementation would involve an accelerated curriculum for kindergarten and, possibly, grade-1 pupils; all other grades would use the extra days each year for enrichment. If gradual implementation is preferred, during the first year only kindergarten and grade-1 pupils would be on the extended year calendar, while the other grades continued with the traditional 180-day school year. A new class of kindergarten pupils would be phased into the program each succeeding year.

The New York State Department of Education calculated the initial transitional period cost and the cost when the program is self-sustaining after the five- or six-year transition period, for individual communities and on a state-wide basis. They concluded that a community which totally implemented the continuous school year plan in grades K-6 could expect a potential transitional period cost increase in total expenditures of 3.6 percent. If implementation were gradual, the transitional period costs would be lower. Calculations indicated that after the transition period, new savings would be approximately 5 to 6 percent of the total operating expenditures of a given school budget. (58:23)

Experimentation: Commack, New York

A modified continuous progress extended school year program was implemented in the Grace L. Hubbs Elementary School in Commack, New York, in August 1964. This three-year experimental program was based on a school year of approximately 210 days, beginning the third week in August and ending the second week in July. (60:11-19)

Subjects were 216 pupils in grades 1-4 at the beginning of the experiment, selected from 14 widely scattered elementary schools among 500 volunteers. According to one source (4), these pupils were chosen on the basis of achievement, age, IQ, and sex to be representative of all Commack children. The matching control group, which remained in the traditional 180-day program, was known to have slightly higher average mental ability than the experimental group. Teachers were selected from volunteers, and were chosen to resemble, in terms of education and experience, the entire group of Commack teachers. Pupils were taught in eight self-contained, heterogeneous classrooms, which averaged 27 pupils per class. There was an attempt to implement the concept of continuous progess, and there was a gradual chronological acceleration of pupils through the normal grade requirements. The purpose of the experiment was to demonstrate that a school district can save one year of schooling at the elementary level.

Measured achievement of ESY (experimental) pupils and control pupils was compared both by grade level and by ability level.

The ESY primary-grade grouping (no further identification) scored higher than the control group on all seven subtests of the Metropolitan Achievement Test (MAT).

After 25 months in the pilot project, or 3.7 months of extra schooling, third-grade ESY pupils scored greater mean and median gains in reading comprehension, as measured by the Metropolitan Reading Test, than did control pupils. These ESY mean and median gains were

FIGURE II.--BASIC CHARACTERISTICS

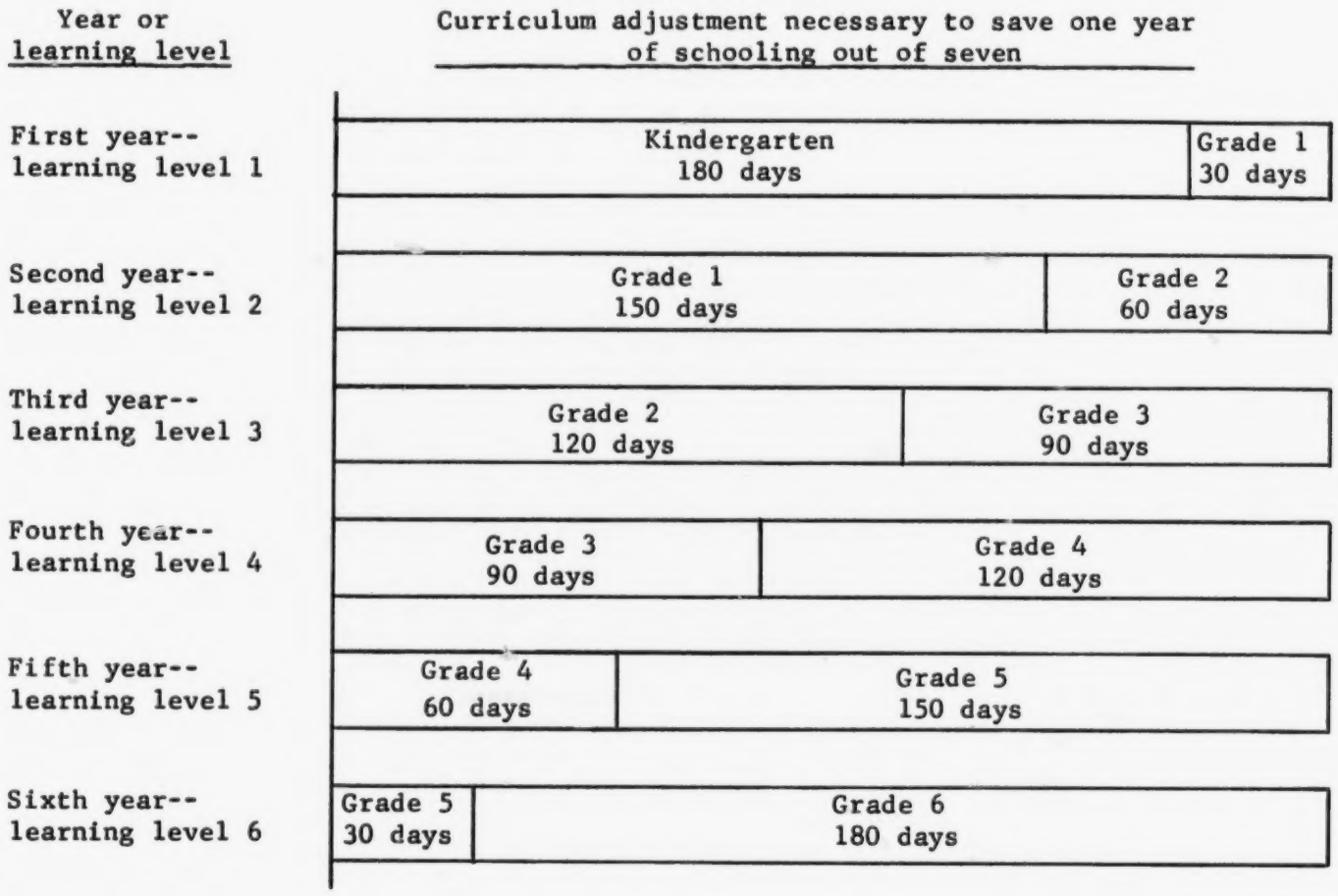
CHARACTERISTIC	CONTINUOUS SCHOOL YEAR PLAN	MULTIPLE TRAILS PLAN	TWO SEMESTERS PLUS MODIFIED SUMMER-SCHOOL PLAN
BRIEF DESCRIPTION OF PLAN	Based on a 210-day school year, this plan calls for the completion of the regular year's work in 180 days, with the remaining days spent on the next grade's work. By the end of the sixth year, or learning level, seven regular grades' work will have been completed. This plan is based on the philosophy that continuous progress will become a reality.	May be implemented in four stages and be economically or educationally oriented. Through use of multiple time modules and extended year, classes meet less often, for varying lengths of time. Releases classroom space, teacher and pupil time immediately, if limited to Stage One. In Stage Two, some of the extra pupil time may be used for acceleration. Stages Three and Four use extra space and time for educational objectives. In Stage Three space and time reserves may be used for remediation, enrichment, etc. Stage Four calls for a program of continuous progress. Schedules may be compacted for acceleration.	This plan deliberately accelerates pupils through secondary school by allowing them to take new academic subjects during the summer. A pupil may complete up to one and one-half courses during a seven- or eight-week summer session.
LENGTH OF EXTENDED SCHOOL YEAR	203 days to save 1 year in 8 210 days to save 1 year in 7 216 days to save 1 year in 6	210 days	Regular 180 days plus 35- to 40-day summer segment (215-220 days)
LENGTH OF SCHOOL DAY	Normal hours, September-June 4 to 4½ hours, July or August	Normal hours	Normal hours, September-June 4 to 4½ hours, July or August
DIVISIONS IN SCHOOL YEAR	None	None	Two 90-day semesters plus 35- to 40-day summer segment
GRADE LEVELS INCLUDED	K-6 1-6 1-8	7-12 8-12 9-12	7-12 8-12 9-12, or possibly 1-8
TIME REQUIRED TO EFFECT SAVINGS IN CLASSROOMS, TEACHERS, AND DOLLARS	In 6-year plan, 5 years In 7-year plan, 6 years for average pupils, less for bright pupils	Stage 1--none, occurs immediately Stage 2--for grades 6-12, 6 years Stage 3--for grades 7-12, 5 years for grades 8-12, 4 years for grades 9-12, 3 years Stage 4--depends on students and needs	For grades 7-12, 5 years For grades 8-12, 4 years For grades 9-12, 3 years
TIME REQUIRED TO BE SELF-SUSTAINING	5 to 6 years	Immediately, if limited to Stage 1	For grades 7-12, 5 years
VACATIONS BEYOND NORMAL CHRISTMAS AND SPRING BREAKS	6 to 7 weeks	4 weeks	4 weeks
NUMBER OF "E" OR EXTRA TERMS PUPILS MAY USE FOR REMEDIAL INSTRUCTION, ADDITIONAL OR ENRICHMENT COURSES, WORK EXPERIENCE, ETC.	No "E" term equivalent 23 to 36 days a year gained	No "E" term equivalent Extra time in daily schedule	None
ADVANTAGES	Saves one elementary-school year in 6 or 7, without divisions in school year. Pupils have fewer teacher changes. Pupils have more time in formative years to master skills and concepts required for later success.	May be implemented in various stages to meet economic or educational objectives. Long transition period before economies can be realized not necessary. Pupil acceleration not necessary to realize economies. Releases classroom space, pupil time, and teacher time, which may be used for a variety of purposes.	Enables pupil acceleration without upsetting status quo in administration, curriculum, etc. The voluntary nature of the plan pleases parents. Program may be fairly inexpensive, and may be financed by fees, etc. Teachers may choose their own summer activities. Programs are more than remedial. Summer segment integrated with regular school year; pupils able to take advanced courses during regular school year. Gives more continuity to the entire school program.
DISADVANTAGES	Curriculum must be reorganized. The concept of continuous progress should be adopted and implemented. This requires much preparation and continuous effort.	Implementation of this plan, with its multiple time modules, requires curriculum revision and revision of teaching procedures. The continuous progress concept of Stage Four requires much preparation and continuous effort.	The cost will exceed that of the traditional summer school. The voluntary nature of the plan makes prediction of its effect on capital outlay and debt service difficult.

Source:
Adapted from: Thomas, George I. Economy and Increased Educational Opportunity Through Extended School Year Programs. Albany: University of the State of New York, State Education Department, Office of Research and Evaluation, August 1965. p. 8-9.

OF SOME EXTENDED SCHOOL YEAR PLANS

TRIMESTER PLAN	QUADRIMESTER PLAN	EXTENDED K-12 PLAN
This plan involves a longer school year divided into three terms. With a slight increase in the length of the daily class period, a pupil can complete two semesters' work in two trimesters. The plan enables pupil acceleration through secondary school, but also includes a varying number of "E" terms, which may be used for a variety of purposes.	Primarily for the secondary school, but lending itself to the elementary school, this plan divides a 204- to 220-day year into four quadrimesters of 51 to 55 days each. Through lengthened class periods, average or above average pupils can complete a regular 180-day course in three quadrimesters. The plan enables pupil acceleration through the secondary school, but also includes a varying number of "E" terms, which may be used for a variety of purposes.	This plan, a composite of other extended school year designs, may have several variations. One typical variation involves a 204- to 225-day school year, with grades K-6 using the extra days for mastering fundamentals and broadening and enriching backgrounds, and grades 7-12 on a trimester or quadrimester plan. Projected economic savings are based on the elimination of one year of schooling out of 13.
204 to 225 days	204 to 220 days	204 to 225 days
Normal hours, September-June 4 to 4½ hours, July or August Class periods lengthened	Normal hours, September-June 4 to 4½ hours, July or August Class periods lengthened	Normal hours
Three 68-to 75-day trimesters	Four continuous quadrimesters of 51 to 55 days	None at elementary level; 3 or 4 at secondary level
7-12 8-12 9-12	7-12 8-12 9-12, or possibly K-6	K-12
One and one-third years	2½ years	May become self-sustaining in second year, depending on secondary plan adopted.
During second year	In 3-and 4-year plans, 1 year In 5-year plan, 2 years	May become self-sustaining in second year.
4 to 7 weeks	4 to 7 weeks	4 to 7 weeks
For plan including grades 7-12, 3 years For plan including grades 8-12, 2 years For plan including grades 9-12, 1 year	For plan including grades 7-12, 2 years For plan including grades 8-12, 1 year For plan including grades 9-12, none	Depends on plan adopted at secondary level; If trimester plan adopted, up to three "E" terms If quadrimester plan adopted, up to two "E" terms Elementary pupils will accumulate the equivalent of 24 to 45 extra school days a year.
Classrooms, special areas, and teachers are released in 1-1/3 years. Depending on grade levels included, 1 year of schooling in 4, 5, or 6 is saved. Pupils have up to three "E" terms, which may be used for additional or enrichment courses, work experience, or early college entry at a time other than September. May reduce dropout rate. Pupils have more educational experience before they reach legal dropout age.	Classrooms, special areas, and teachers are released in 2½ years. Depending on grade levels included, 1 year of schooling in 4, 5, or 6 years is saved. Pupils have up to two "E" terms, which may be used for additional or enrichment courses, work experience, or early college entry at time other than September. May reduce dropout rate. Pupils have more educational experience before they reach legal dropout age.	Saves 1 year of schooling in 13. Releases secondary classrooms, special areas, and teachers in 1-1/3 to 2½ years, depending on secondary plan adopted. Provides elementary pupils with extra learning time. Secondary pupils may have up to three "E" terms, depending on plan adopted. Keeps all pupils, K-12, on same school calendar. May reduce dropout rate. Pupils have more educational experience before they reach legal dropout age.
Year divided into three terms. To equalize time, daily class periods may need to be lengthened.	School year divided into four terms. To equalize time, daily class periods may need to be lengthened.	Daily class periods may need to be lengthened. Because some pupils will elect to enrich and broaden backgrounds or will need to spend extra time mastering fundamentals, instead of accelerating, classroom and staff requirements and financial savings predictions may be difficult.

FIGURE III.--OPERATION OF THE CONTINUOUS SCHOOL YEAR PLAN FOR RESCHEDULING THE SCHOOL YEAR


Year or learning level
Curriculum adjustment necessary to save one year of schooling out of seven
First year-- learning level 1
Kindergarten 180 days
Grade 1 30 days
Second year-- learning level 2
Grade 1 150 days
Grade 2 60 days
Third year-- learning level 3
Grade 2 120 days
Grade 3 90 days
Fourth year-- learning level 4
Grade 3 90 days
Grade 4 120 days
Fifth year-- learning level 5
Grade 4 60 days
Grade 5 150 days
Sixth year-- learning level 6
Grade 5 30 days
Grade 6 180 days

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statistically significant at the 1 percent level of confidence. The third-grade ESY pupils also had higher mean and median scores than their controls in the area of word knowledge.

The mean composite MAT scores and the reading scores of both grade 4 and grade 5 ESY pupils exceeded the comparable scores of their respective control groups. These ESY gains were statistically significant at the 5 percent level of confidence.

The grade 6 ESY group had a higher composite MAT score than its control group, but showed a slight loss in reading. Neither the gain nor the loss was statistically significant.

Thus, although analysis showed that the ESY group had lower mental ability than the control group, the ESY group, with the exception of grade 6 pupils, scored greater gains in achievement than control pupils.

When ESY pupils and control pupils were grouped by mental ability and their standardized test scores compared, it was found that the ESY group termed "slow learners" made the greatest gains over their control group, and the "average ability" ESY group, the least gains over their control group.

Bendicksen (4) reported that during the first year of this pilot project, the summer attendance averaged 95 percent, while the regular school year attendance of all pupils averaged 92 percent. This higher summer attendance average apparently carried throughout the three-year experimental period. Bendicksen also reported that during the first year, pupil morale was high.

Parental reaction to the experimental program was obtained by questionnaire. Most parents reported that they had originally enrolled their children in the program to provide them with a better education, and 88 percent said they would readily re-enroll their children in a similar program. Reportedly, most parents favored the four- to five-week summer vacation. Eight out of 10 parents (81 percent) preferred an early August opening with a June vacation to a late August opening with a mid-July vacation. Parental objection to the summer program was primarily against bussing practices.

Experimentation: Green Chimneys School, New York

The 1967-68 Green Chimneys School experimental program was a modified form of the continuous progress plan (60:45-50). The academic program was extended from 180 days to approximately 233 days per year. Pupils spent three and one-half hours in the morning on academic activities, with art, music, physical education, and one hour of study in the afternoon.

Green Chimneys School is not a public school, but a nonsectarian, interracial, nonprofit boarding and day school set on a 105-acre farm in the New York Berkshires. Prior to the pilot project, the school operated an academic program for 10 months and a camp in the summer. The school attempts to provide for the needs of children who come from disruptive homes, who are academically retarded, or who exhibit emotional, neurological, or perceptual problems. It provides a highly structured academic setting. Most of its preschool through eighth-grade pupils are able to cope with the secondary school curriculum when they leave Green Chimneys School. Approximately one-fourth of the pupils are emotionally disturbed, one-fourth have problems related to brain damage, and the remaining one-half are nonhandicapped, average or gifted children. In this atypical setting, the objectives of the experiment were slightly different from those of other experimental projects.

The program apparently had a positive impact on children. For example, it was found that the academically retarded pupils had an opportunity to make up their retardation. The experience appeared to be settling for emotionally disturbed children who usually regressed emotionally during the summer at home. Teachers and administrators reported a reduction in social and behavioral problems among the pupils. Middle- and upper-grade pupils reported they felt a sense of accomplishment during the period when they were usually wasting time, and, reportedly, the adjustment to the fall academic term was easier than in past years.

The school physician found no evidence of injury to the children's health.

Little statistical analysis of pupil achievement was available. Analysis of achievement test scores of control and noncontrol pupils (groups not defined) showed a language growth by the experimental group significant at the 5 percent level of confidence. The experimental group made greater gains than the control group between pre- and post-testing on the Stanford Achievement subtests for paragraph learning and arithmetic application. The results were not statistically significant at the 1 percent level of confidence. Tests used to measure behavior and attitude showed differences between the two groups to be nonsignificant.

Reactions of the 15 participating teachers were favorable. Results of a poll were as follows: 86 percent wholeheartedly favored the 12-month program; 91 percent favored continuation of the program; 82 percent would be willing to work in a full 12-month program; 100 percent reported that children seemed willing to learn; 93 percent reported that children did not show resentment at having to go to school during the summer; 82 percent reported that children seemed to have healthier attitudes; 100 percent reported that children had not been fatigued; and 82 percent reported that the fall school opening seemed easier than in the past.

Multiple Trails Plan

The Plan

The multiple trails design provides for the reorganization of the secondary school, and is directed toward both educational and economy objectives (59). The plan does not require a transition period, and may, but need not, utilize chronological acceleration of pupils. The designers report that while other extended school year plans have potential to release classroom space in proportion to student enrollment in a particular grade, the multiple trails plan shows a savings in space related to the number of available classrooms and the length of the school day. It can provide an immediate release of 25-26 percent of available secondary-level classroom space.

Based on an 11-month, or approximately 210-day, school year, this plan provides a July or August vacation in addition to traditional winter and spring vacations.

The school day, which would be no longer, would be rescheduled into time modules. These modules might be 15-17 minutes long, or up to 30 minutes long, depending on the local school's decision. To make the transition from the regular school year to the multiple trails plan, the current instructional time allotment for a given subject must be equated in terms of the new time modules extending over a 42-week, or 210-day, school year. The number of time modules allotted for each class session depends on the day the class is meeting and the subject under consideration. The rescheduling may provide less instructional time per week in a given subject, but over the extended year, the total yearly instructional time will be equalized.

An integral part of this plan is the concept of a hypothetical education reserve bank, into which extra, or saved, instruction and learning time and classroom space are deposited. These

deposits may be left in the bank to effect economic savings, or may be drawn upon to provide such things as remedial instruction, teacher planning periods, or additional course offerings.

The multiple trails plan may be implemented at four stages.

1. Stage One. With the adoption of a lengthened school year and multiple time modules, Stage One immediately releases pupil time, instruction time, and classroom space.

Pupil time is released because, although over the extended year the pupil will receive the same amount of total instructional time per class, he may weekly meet his class less often and possibly for shorter periods of time.

> While [over the year] the student continues to receive the same amount of instructional time, the new schedule reduces the number of daily teacher contacts per day and week and releases what may be described as 'E' time. (59)

The rescheduled day also changes the nature of the teacher's day and week. With fewer daily pupil contacts and fewer daily preparations, the teacher also has "E" time, which may be scheduled into a free daily period of time or may become a free block of time one or more days each week. The teacher might use this free time at such work as curriculum revision.

Classroom space is also immediately released with the new time arrangement. The designers of this plan estimate that the plan will result in a 25 percent increase in classroom space for classrooms used eight periods a day. If a small adjustment is made in the length of the school day, the increase in classroom space may approach 37-1/2 percent. (59:7)

2. Stage Two. If immediate economy is desired, pupil involvement should be limited to Stage One. If not, some of the extra pupil learning time may be used for pupil acceleration through the secondary school curriculum.

3. Stage Three. In Stage Three, more assets of the educational reserve bank are drawn upon to further educational objectives. Rather than pupil acceleration, the primary objective becomes provision for individual pupil needs. Extra pupil and teacher time is spent on remedial, corrective, and enrichment programs. Both college-bound and terminal pupils may spend their released time during each day at work programs.

4. Stage Four. Basic to Stage Four is the adoption of a program of continuous progress. Grade lines at the secondary level become insignificant, and pupils move along a subject trail at their own rates. Pupil schedules may be compacted to enable acceleration.

This stage requires considerable curriculum revision, with the traditional curriculum organized into broad resource units that can be completed in four, five, or six weeks.

Modified Summer-School Plan

The Plan

This plan attempts deliberately to accelerate pupils through secondary school by offering new academic courses rather than only remedial, makeup, or enrichment courses during a seven- or eight-week summer session (58:67-72). Time is equalized so that the instructional time for the seven- to eight-week session about equals that for one subject during the traditional school year. Pupils regularly attending the summer session should be able to complete four to six regular school years in one less year. Bright pupils might be able to complete one and one-half courses during the summer, and thus might be able to accelerate even more.

The New York State Department of Education estimates that when this plan is based upon the progress of average-ability pupils in grades 7-12, it will be five or six years before "a reduction in student enrollment will justify the release of classrooms and teachers."

Although the cost of the modified summer school would likely exceed that of the traditional summer-school program, preliminary cost analysis indicates that the per-pupil cost of offering new academic courses in the summer would be much lower than during the regular school year. If the summer program is voluntary, the task of predicting its effect on capital outlay and debt service is difficult.

Experimentation: Syosset, New York

The Syosset modified summer-school program began in the summer of 1965 for students who had just completed seventh grade (60:26-32). Participating students were separated into three experimental subgroups: (a) fast learners and academically talented pupils who, by enrolling in three summer sessions, might complete their secondary-school education in five years rather than six; (b) average-ability pupils who could possibly accelerate after four sessions of summer school, and (c) average or above-average ability, non-succeeding pupils and slow learners, who might be expected to require six or seven years to complete the four-year high-school course.

Three control subgroups were chosen from the same seventh-grade class. They were matched with the three experimental subgroups on age,

IQ, sex, achievement test scores, teacher works, and tracking recommendations, but did not participate in the extended school year project.

Three other subgroups, also matched with the experimental subgroups but one grade ahead of them and not participating in the extended school year project, were termed comparison subgroups.

During each of the six-week modified summer-school sessions, experimental subgroups 1 and 2 took one full-year academic course for the first time, plus a one-half year enrichment course. Experiment subgroup 3, the underachieving and slow-learning pupils, used the time as a third term in which to complete basic courses, and also took an enrichment course or a vocational course. Team teaching, which was not a part of the regular school year program, was used during these summer sessions.

Achievement was measured by standardized tests, teacher grades, and Regents Examination scores. Test score analysis showed that upon completion of the six-week, first-time, full-year courses in eighth-grade social studies, ninth-grade English, tenth-grade mathematics, and tenth-grade earth science, the experimental pupils in subgroups 1 and 2 scored as well as, or better than, their respective control groups. For example, the average grade equivalent score on the Stanford Achievement Test of those experimental pupils taking eighth-grade social studies during the summer was 11.3, while the comparable score of the control group was 10.8. The comparison group average score was 11.1.

Experimental pupils who completed a summer session, full-time, academic course took the next sequence course in that area with older students. These experimental groups received equivalent or better grades than the matched, but chronologically older, comparison groups. For example, in World History, the experimental group median grade was 85, compared with the comparison group median of 83. The English 10 median grade average for the experimental group was 81, compared with 80 for the comparison group.

Comparisons of final grades in English, science, mathematics, and social studies indicated that the experimental pupils were doing as well as the pupils in the comparison groups. The experimental pupils had a median grade average of 83 and a mean grade average of 80, compared with comparable grade averages of 80 and 80 for the comparison group.

Failure was defined as those pupils who received D's and F's in prerequisite courses. The experimental group had 75 failures, the comparison group, 82 failures.

In experimental subgroup 3, the underachievers and slow-learners whose IQ's ranged from 85 to 128, individual pupils achieved satisfactorily, while others did not. It was reported that there was no evidence that the special three-term courses designed to give this subgroup extra learning time were of much value to all students.

Summer attendance of the experimental group was reported to be very good. Studies indicated that the volunteer, experimental group's attendance record was considerably better than the comparison group's and slightly better than the control group's.

Conclusions drawn from the experiment were largely favorable. Comparisons of teacher grades, Regents Examination scores, and standardized achievement test scores revealed that the experimental group was doing as well as, and in some instances better than, their peers, the control group, and older students, the comparison group. The acceleration of experimental pupils into advanced level courses in the regular school year after they had completed lower level courses during the summer apparently created no academic, social, or emotional problems. It was reported that completion of regular academic courses in six weeks instead of 10 months did not adversely affect depth of pupil learning.

A survey of Carnegie units earned by the end of the third summer session showed that three-fourths of the experimental group could graduate one year early. One-fourth of the control group could graduate one year early, and about one-tenth of the comparison group could graduate early. It was concluded that average and above-average pupils "can complete six years of secondary school work in five years with approximately the same level of achievement as other" pupils.

Cost analysis revealed that full unit courses offered during the summer session cost less than similar courses offered in the regular 10-month school year.

Among teachers there was some negative reaction to the program, especially against its noneducational objectives.

Reaction from some low-ability experimental pupils (subgroup 3) was negative. They resented the fact that they were not allowed to participate in the acceleration portion of the program. During the first summer, 59 experimental pupils dropped out of the program, but some later returned. Two pupils dropped out during the second summer, and three, during the third summer. It was reported that pupil interest during the first year decreased because some accelerated pupils were transferred to the high school earlier than had been intended. Reportedly, many of the dropouts would have remained in the program had the secondary-school curriculum been moved down to the junior high school.

Of those parents responding to questions after the first summer session, 80 percent thought their child had benefited educationally from the program, while 5 percent disagreed. Eighty percent reported lack of negative developments, 13 percent felt that participation in the program had interfered with their children's summer, and 70 percent disliked the team teaching approach and preferred shorter lectures and more time with the base teacher.

Of the 45 parents responding to questions after the second summer, 35 reported signs of positive growth and development over the summer, and 8 noted negative developments. Parents reported these problems most frequently encountered by students: 11, heat; 6, fatigue; 6, distractions.

The researchers concluded that the voluntary nature of the program "was detrimental to the implementation and results of the study."

Experimentation: Hornell, New York

The modified summer-school program for junior and senior high-school pupils at Hornell lasted seven weeks, with credit courses meeting four hours daily. The program was completely separate from the existing summer-school program, which offered remedial and makeup work. (60:32-39)

Achievement was measured by teacher grades, scores on Regents Examinations, and standardized achievement tests. It was reported that average achievement of those experimental pupils in the summer session program was equal to, and in some instances higher than, the achievement of comparable students taking similar courses during the fall and spring terms. Likewise, summer students made as good, if not better, scores on teacher-made tests as regular school year students.

Standardized achievement tests were administered to all pupils in May, directly after control pupils had completed courses, but 10 months after experimental pupils had completed summer session courses. Results showed that experimental pupils scored as well as, if not better than, control students.

The 58 experimental pupils, who were tested 10 months after they had completed Math 8 during the summer session, scored higher than the control pupils. The experimental group gain was significant at the 1 percent level of confidence.

The 99 experimental pupils who took mathematics as a new subject during the summer were compared with 99 matched pupils who took a similar course during the regular school year. Comparisons of the mean scores showed that the experimental group's gain over the control group's gain was significantly higher, at the 1 percent level of confidence.

The experimental group and the control group were also compared on achievement in American History, World History, and Chemistry. None of the differences in achievement of the two groups were statistically significant at the 1 percent level of confidence, but it was observed that the experimental pupils achieved at as high levels as, if not higher levels than, the control group.

Regents Biology Examination scores of 1965 and 1966 summer students were compared with scores of students who took Biology during the regular school year. The 61 summer students had a mean score of 78.16, compared with a mean score of 70.42 for the 123 regular school year students. It was reported that on other Regents Examinations, summer students scored as well as, if not better than, regular school year students.

This and other achievement data led researchers to conclude that "...fast, average, and slow learning students can complete first time, full year academic courses in less time than the traditional 180 day school year." (60:36) The researchers also concluded that "learning is not harmed by the presentation of material or skills in new time blocks such as a compacted four hour day in a seven week session instead of a ten month school year." (60:36)

Student complaints included one about the heat. But the researchers noted that those students who had attended classes in air-conditioned classrooms, when compared with those attending in non-air-conditioned classrooms, showed no significant differences in achievement or growth patterns.

Apparently no social, emotional, or academic problems resulted from the chronological mingling of pupils.

The researchers believed that special three-term courses especially designed for pupils having difficulty in mathematics were responsible for a decrease in the number of pupils failing mathematics. They also reported that "some slow progressing, average students who otherwise would have been dropouts were able to graduate with completion of first time courses in the summer segment program." (60:38)

Parental reaction to the summer academic program was favorable.

Studies revealed that the cost of offering full-year courses during the summer was less than the cost when the courses were offered during the regular school year. Maintenance costs for the summer were not greatly increased.

Experimentation: School of Human Resources, New York

The School of Human Resources serves approximately 125 pupils in grades K-12, all of whom are physically, but not mentally, handicapped. It is not a public school, but receives some financial assistance from the state. (60:40-45)

The modified summer-school program at this school consisted of a seven-week extension of the regular school year. Academic classes were held for three hours during the morning, and recreational activities took three hours in the afternoon. Academic classes for elementary-school pupils emphasized enrichment in the basic skills, while junior and senior high-school pupils met in three one-hour courses, with 30-40 minutes of the hour spent on instruction and the remaining time on study. Courses offered to secondary-school pupils were: English 7, 8, 9, 10, and 11; Social Studies 7, 8, 9, and 11; Math 7 and 8; Algebra; and Introduction to Business and Typing. Most academic courses continued with the curriculum materials or skills begun during the regular school year, but some provided an introduction to materials to come the next semester.

Comparisons of pre- and post-test scores revealed significant achievement gains in all subject areas at both the junior and senior high-school levels. For example, gains in Social Studies 10 and Business Math were significant at the 1 percent level of confidence. Junior high-school pupils demonstrated a mean growth of 10.3 months in arithmetic, as measured by the Iowa Tests of Basic Skills. Elementary-school pupils showed a mean growth of 2.8 months on the Stanford Reading Test and a mean growth of 3.25 months in Arithmetic.

The program's impact on pupils was also positive. According to the researchers, the program "helped physically handicapped children acquire new levels of self-confidence" (60:43). Those who might not have been able to complete prescribed courses of study because of frequent absenteeism were able to finish them by August. Pupils who had been unable to pass June Regents Examinations succeeded in August. Many who had previously been isolated in their homes during the summer months were able to make and continue social contacts. Finally, the experiment refuted the contention that physically handicapped pupils cannot stand the pace of an extended school year. There was no evidence that involvement in the summer program was detrimental to students' physical fitness. Indeed, the program was considered beneficial to the health of the handicapped pupils.

Trimester Plan

Variations of the trimester plan have been used in several schools, notably the Nova High School, Fort Lauderdale, Florida, (20; 46) and the Florida State University Laboratory School, Tallahassee (35). The most comprehensive, readily available description of a trimester plan has come, however, from the New York State Department of Education (58:27-52).

The New York Plan

As the name implies, the trimester plan involves the division of the school year into three equal terms. A combination of a longer school year with a small increase in the length of daily class periods enables a pupil to complete two regular semesters' work in two trimesters. Thus, a pupil may be able to accelerate through the secondary-school curriculum without loss of a summer vacation. It has been suggested that there be one-week vacations between trimesters 1 and 2 and between trimesters 2 and 3.

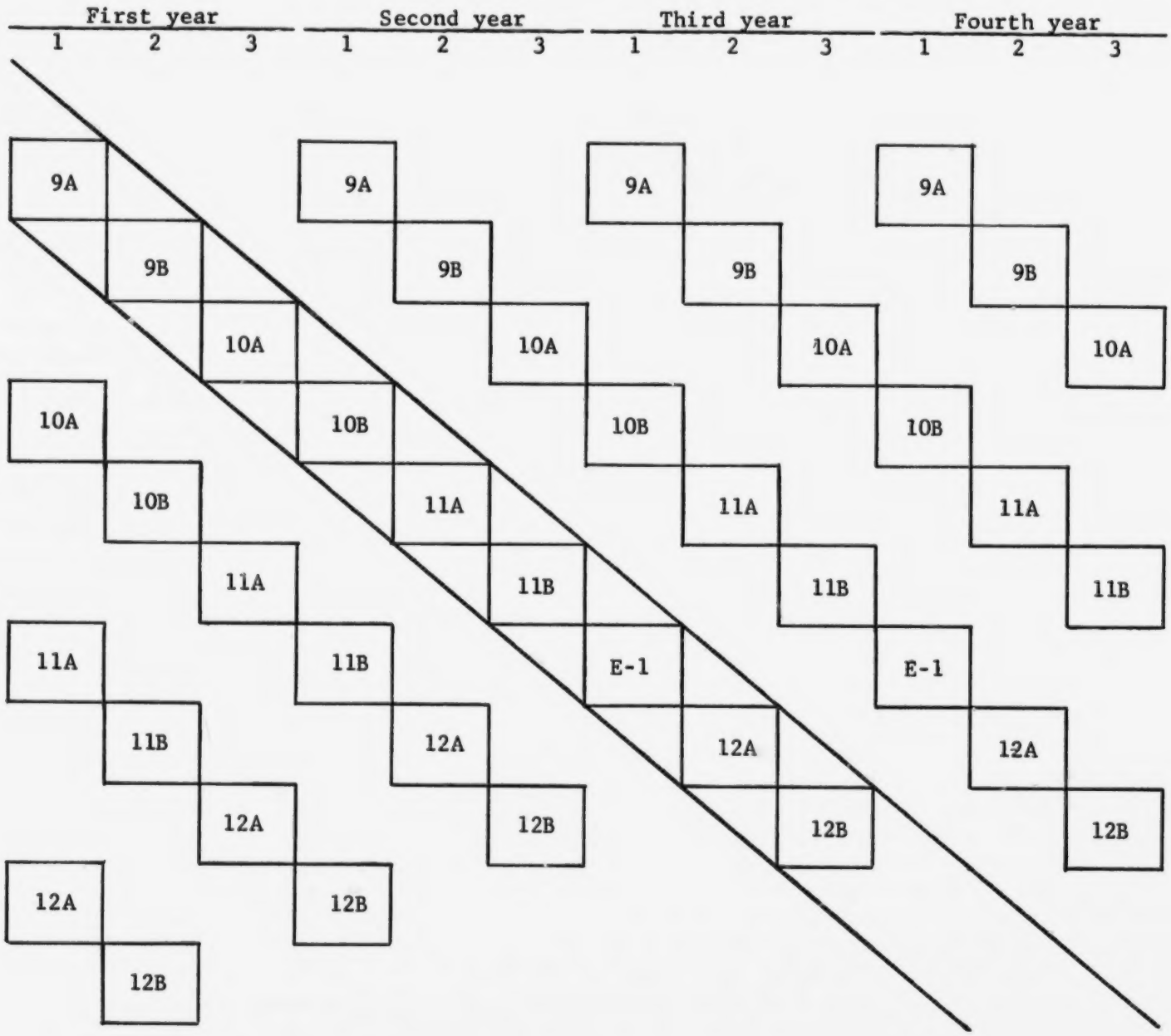
An integral part of the New York trimester plan is the "E," or extra, term. The primary purpose of the "E" term is to stabilize enrollment flow, but it is envisioned that pupils may spend their extra terms (or trimesters) at many worthwhile educational activities, such as enrichment or broadening activities, intensive remediation or make-up activities, school-directed or non-school-directed work experience. or vacation. Some pupils may wish to reduce their class loads. Some courses may be offered as three-term courses. The use of "E" terms for further acceleration is not recommended. The place of the "E" term in the enrollment flow and school sequence can be seen in Figure IV.

The length of the trimester depends upon the length of the school year and the length of the class periods. The trimester might range from 68 days to 75 days, making a range of school year lengths from 204 days to 225 days. The New York State Department of Education recommends a 210-day school year, with 70-day trimesters. If a 204-day school year is preferred, the trimesters will be 68 days long, and the class periods will need to be lengthened by approximately 13 minutes. Class periods will need to be increased by approximately eight minutes if the 75-day trimester is adopted. (These estimates are based on an average class-period length of 40-45 minutes.)

This trimester plan, with one year of pupil acceleration plus a varying number of "E" terms, may be adapted to include grades 7-12, 8-12, or 9-12.

The three-year trimester plan for grades 9-12 saves one year of schooling in four. A full four-year program, plus one "E" term, can be completed in three years. The four-year trimester plan for grades 8-12 saves one year of

FIGURE IV.--ENROLLMENT FLOW IN A THREE-YEAR TRIMESTER PLAN



Source:
Adapted from: Thomas, George Isaiah. Extended School Year Designs. Albany: University of the State of New York, State Education Department, January 1966. p. 27.

NEA Research Division

schooling in five and provides two "E" terms. A five-year trimester plan for grades 7-12 provides three "E" terms and saves one year of schooling out of six. It is apparent that an increase in the number of grades included in this particular trimester plan leads to an increase in the number of "E" terms available to students.

After the initial transition period of four trimesters, one class of the traditional secondary-school arrangement would be eliminated, and savings of classroom space and teachers begin to accrue.

There will be extra costs during the adjustment period. Cost analysis indicated that there will be a 2 percent increase in the current expense budget if the four-year trimester plan is adopted, and a 6 percent increase in current expenses if the six-year plan is adopted. After the adjustment period, there should be a surplus in operating expenditures. Cost analysis also indicated that over-all costs are less and

current expenditure savings greater in the three-year plan than in the four- or five-year plans.

A Florida Trimester Plan

The Florida Educational Research and Development Council briefly described a trimester plan and analyzed the cost for the schools of Polk County, Florida (22:15). The Council suggested three trimesters of 75 days each, or a 225-day school year, with a two-week Christmas vacation and a five-week summer vacation. The length of the school day would be "approximately what it is now." The plan would allow both elementary-school pupils (grades 1-6) and secondary-school pupils (grades 7-12) to save one year of schooling out of 12. The Council suggested that the early graduation could be offset by changing school entrance age from six to seven years. It estimated that after a 10-year transition period, total net expenditures would decrease by 4.23 percent (22:39).

Experimentation: Nova High School, Fort Lauderdale, Florida

Experimentation with variations of the trimester plan began with the opening of Nova High School in September 1963. In April 1966, Dave Fitzpatrick, principal of the school, reported that since September 1963, Nova has experimented with three different school year lengths (20:30).

It should be noted that Nova is not a typical six-year, junior-senior high school. Its students are selected from a county school system which maintains seven other high schools. Students from all ability levels are considered, but selection is limited to those applicants who indicate a willingness to work hard and whose parents indicate a willingness to support Nova's program. Since its inception, the school and its programs have been described as "innovative." (46)

The first variation of the longer school year, which apparently operated for two years (20:30) was described in detail in April 1964 (46). The 220-day school year, September through July, was divided into three trimesters. The five daily class periods were 70 minutes long, and there was an optional, early-morning period for club and group activities. Implementation of a nongraded program allowed students to progress at their own rates through a series of gradually rising achievement levels in each subject area. Reportedly, this absence of steep achievement levels allowed the students to move smoothly during the school year from one achievement level to the next, with major regrouping coming at the end of each trimester. Because each subject-group of students, under a team of teachers, contained several levels of achievement, and because each achievement level had demanding requirements both of subject understanding and of self-instruction skills, very few students moved through more than one subject-group during the trimester. It was possible for a beginning tenth-grade student to complete his secondary education in two and one-third years.

Fitzpatrick (20:30) reported that this trimester arrangement was discontinued for several reasons. First, the September-July school-year calendar caused a strain on students and teachers because of a lack of extended vacations from Easter to the end of July. Second, the fact that Nova students were not released until about seven weeks after surrounding schools were dismissed for the summer caused a "tremendous psychological letdown" on the part of the students. Finally, July was the most popular vacation month, and since students were not legally required to remain in school beyond 180 days, some parents exerted pressure to have students released early. Budgeting and teacher certification problems also contributed to the decision to seek another arrangement.

In 1965-66, the length of the school term was reduced to 193 days, with the end of the school year more nearly coinciding with that of schools having a traditional school-year calendar. A special "July Program," in which students could participate in such things as seminars and workshops, was initiated. Fitzpatrick did not indicate whether participation in the July Program was for credit and whether the school year was divided into trimesters.

Reportedly to be initiated during the 1966-67 school year was a 210-day school year running from mid-August through June. With continuation of the "July Program" and a two-week orientation program for new teachers from August 1 to August 15, school facilities were scheduled to be used year-round. It was expected that most senior Nova students would complete school each year in mid-April.

Experimentation: Florida State University Laboratory School, Tallahassee

Beginning in the fall of 1962, the Florida State University lab school conducted a pilot study of a trimester plan. According to Merwin (35), the school year of 225 days was divided into three 75-day trimesters, with a slightly longer school day. Students of all grade levels (primary through senior high) participated in the experiment, which included an ungraded curriculum. Physical education classes were held on Saturday.

The primary aim of the project was pupil enrichment and broadening, rather than pupil acceleration. In April 1963, Merwin reported that during the first two years of the experiment, all pupils were to be required to attend two and

one-half trimesters each year. Beginning in 1964, pupils were to be required to attend two consecutive trimesters, with a choice of which two, but were to be required to complete a certain number of units to be graduated.

As of April 1963, the same number of teachers were required as under the semester arrangement. Whether this plan was fully implemented and whether it remains in operation is not known.

Experimentation: New York City

In April 1966, Moon (38) reported that New York City officials were working on a trimester plan as a way of coping with increased enrollments.

Another source reported New York City School Superintendent Donovan as saying that New York's first trimester high school would probably open in the fall of 1967 (11). It is not known if this plan was implemented.

Experimentation: Buford, Georgia

According to Southern Education Report, a variation of the trimester plan has been adopted in Buford, Georgia. An eight-week summer term has been added to the school year, and pupils may earn a maximum of two credits during the summer session. (55:26)

Rotating Trimester Plan

Another variation of the trimester plan analyzed by the Florida Educational Research and Development Council is the rotating trimester plan (22:14-15). This plan operates much like the rotating four-quarter plan, except that the school year is divided into three 75-day trimesters. One-third of the pupils would be on vacation at any one time during the school year, while the other two-thirds would be attending school. All class periods would be lengthened approximately 10 minutes.

The Council found that if this plan were implemented in Polk County, Florida, it would result in a 8.90 percent increase in total net expenditures (22:44).

Split Trimester Plan

The New York State Department of Education designed this variation of the trimester plan (58:89-102). It is meant to be a compromise between the regular trimester plan and the traditional summer-school plan. An extended school year of 212 to 226 days is divided into two trimesters of 72-75 days each. A third trimester is divided into two split-trimesters, 3A and 3B, each 34-38 days long. Attendance at term 3B is optional. If a student chooses to attend term 3B, he has a four- to five-week vacation. If he attends only term 3A, he has an 11- to 12-week vacation.

Term 3B may be completely or partially voluntary. If 3B is to be completely optional, a redesigned curriculum must enable a pupil to begin a new course in the middle of trimesters 1 and 2. Under a partially voluntary plan, school officials would establish a minimum number of terms which pupils must attend, with pupils required to attend some 3B terms but able to select which ones. Figure V illustrates the completely voluntary split-trimester plan.

The partially voluntary arrangement has the advantage of enabling school officials to predict how many pupils will be attending term 3B.

Quadrimester Plan

The Plan

The quadrimester plan is based on an extended school year of 204-225 days, with four 51-55 day quadrimesters (58:53-66). Through a lengthening of class periods, average and above-average pupils can complete a traditional 180-day course in three quadrimesters. A permanent reduction in school enrollment can be expected at the end of the ninth quadrimester after the plan is implemented.

This plan is designed primarily for secondary schools, but may be used at the elementary level, with the quadrimester breaks helpful divisions as guideposts for achievement and possible transfer points. The implementation of continuous progress is an integral part of this plan; at quadrimester breaks, a pupil may be moved from one class section to another which more nearly matches his learning level.

The plan enables one year of pupil acceleration over a four-, five-, or six-year period. Like the trimester plan, it provides "E" terms, the number varying with the number of grades included.

If the plan is adopted in grades K-6, pupils can complete seven traditional grades in six extended school years, with three "E" terms for enrichment, remedial, or broadening activities. The five-year quadrimester plan, including grades 7-12, saves one year of schooling out of six and provides two "E" terms. The four-year plan, grades 8-12, saves one year of schooling out of five and provides one "E" term. The three-year plan, grades 9-12, provides no "E" terms, but allows pupils to graduate in three years instead of four.

FIGURE V.--PROGRAM FOR STUDENT ELECTING TO TAKE ALL POSSIBLE VACATIONS IN A FIVE-YEAR, COMPLETELY VOLUNTARY SPLIT-TRIMESTER PLAN

Year	Trimester One	Trimester Two	Trimester Three	Optional/ mandatory
1	7A	7B	8A-1	Mandatory-- 2½ trimesters
			Vacation	Optional-- Trimester 3B
2	8A-2 8B-1	8B-2 9A-1	9A-2	Mandatory-- 2½ trimesters
			Vacation	Optional-- Trimester 3B
3	9B	10A	E-1	Mandatory-- 2½ trimesters
			Vacation	Optional-- Trimester 3B
4	10B	11A	11B-1	Mandatory-- 2½ trimesters
			Vacation	Optional-- Trimester 3B
5	11B-2 12A-1	12A-2 12B-1	12B-2	Mandatory-- 2½ trimesters
			Vacation	Optional-- Trimester 3B

Source:
Adapted from: Thomas, George Isaiah. Extended School Year Designs. Albany: University of the State of New York, State Education Department, January 1966. p. 90.

In order to equalize time so that two 90-day semesters' work may be completed in three quadrimesters, class periods must be lengthened. The New York State Department of Education recommends the following lengths of class periods for the varying school year lengths (58:61):

Length of school year	Length of quadrimester	Length of class period
220 days	55 days	49 minutes
216 days	54 days	50 minutes
212 days	53 days	51 minutes
208 days	52 days	52 minutes
204 days	51 days	53 minutes

The Quadrimester and Rotating Four-Quarter Plans Compared

These two plans are quite dissimilar.

Quadrimester	Rotating four-quarter
All pupils attend school every day.	Pupils attend three quarters out of four. Only three-fourths of student enrollment is in school at any one time.
All pupils have a 4-7 week summer vacation, taken at the same time.	One-fourth of pupils are taking a 3-month vacation at any one time. Vacation may be in fall, winter, spring, or summer.
Pupils are deliberately accelerated by one year.	No attempt at pupil acceleration is made.
Under several arrangements, pupils have "E" terms.	Has no "E" term equivalent.
Schools are open 4-7 weeks during the summer for cleaning and repair.	Schools are operated year-round, leaving little opportunity for daytime cleaning and repair during the week.
No minimum school enrollment is required to make the plan feasible.	A minimum school enrollment is required to make the plan feasible.

The Quadrimester and Trimester Plans Compared

The Trimester plan provides more "E" terms than the Quadrimester plan, as shown below.

Number of grades in plan	Number of "E" terms in quadrimester plan	Number of "E" terms in trimester plan
4	0	1
5	1	2
6	2	3
7	3	4

The trimester plan also has a permanent reduction in student enrollment and becomes self-sustaining sooner than the quadrimester plan. (One and one-third years, compared with two and one-fourth years.)

Experimentation: Cato-Meridian School District, New York

Combining a longer school day with a longer school year, the Cato-Meridian modified quadrimester plan provided the equivalent of a 220-225 day school year to pupils in grades K-6 (60:19-25). The kindergarten school day was increased by 10 minutes. Seventy minutes was added to the school day in grades 1-4, and 20 minutes was added in grades 5 and 6. Theoretically, this was sufficient to allow pupils to complete the traditional one year's work in three quadrimesters.

The experiment lasted three years (1963-1967), during which time a few pupils were transferred from one class to another more suited to their achievement levels.

Pupil achievement was measured by means of standardized tests. Experimental pupils were compared with pupils attending school prior to the project and with other experimental pupils with one year less in the project, and by ability levels.

Experimental pupils (1964-67) had higher composite ITBS scores than control pupils (1961-64); the differences were not great, but they approached statistical significance at the 10 percent level of confidence. Experimental pupils made their greatest measured gains, significant at the 1 percent level of confidence, in work-study skills such as map reading and use of reference materials.

Comparisons of Stanford Achievement Test scores of pupils with one year in the experimental program with those with no time in the program showed no statistically significant differences between the two groups. Fifth-grade pupils with two years in the program scored significantly higher, at the 1 percent level of confidence, than fifth-grade pupils with one year in the program on the Stanford Achievement subtest on arithmetic computation. They also made greater gains on the other subtests, but differences

were not statistically significant. Sixth-grade pupils with three years in the program scored higher on all Stanford Achievement subtests than did sixth-graders with only two years in the program, but differences were not statistically significant.

When Stanford Achievement subtest scores of these same groups (one year in program versus none, etc.) were compared by ability levels (high, low, and average), again there were few statistically significant differences. The lowest ability groups made the most significant gains.

Teacher response to a questionnaire showed that two-thirds thought the extra time beneficial to the learning process because it enabled pupils to work in greater depth and because it promoted a broadened and enriched curriculum. It was also reported, however, that teachers showed "considerable negativism" toward the program.

When parents were questioned in 1966, 28 percent said they were not in favor of the longer school year. In a 1967 survey, two-thirds of the parents were satisfied with their children's school progress, and two-thirds stated that their children had no adjustment problems attributable to their participation in the extended school year program.

Regarding academic achievement, those who reported this experiment concluded that "academic gains are not large enough to support the thesis that the lengthening of an elementary school year improves student achievement....

Students in the experimental program made academic gains, but statistical analysis failed to reveal sufficient gains to uphold the hypothesis that the Cato-Meridian Extended School Year Plan could ultimately reduce school costs." (60:24-25)

This result may have been due to the manner in which this program was implemented. The researchers reported that "there was no evidence that extra time provided was earmarked for a specific purpose; the assumption has been made that much of it was wasted." (60:24)

The researchers did conclude, however, that the low ability group's gains support "the findings in other extended school year programs that slow learners or disadvantaged children benefit educationally when placed in a well-structured extended school year program." (60:25)

It was also suggested that the lack of a uniform calendar for the elementary school in which the program operated and the adjacent secondary school contributed to resistance from pupils, parents, and teachers.

Extended K-12 Plan

The New York Plan

The Extended K-12 plan combines features of other extended school year plans (58:73-87). Its purpose is to save one year of schooling out of 13, while providing more and better education for all pupils. Elementary-school pupils would use the extra days each year in mastering fundamentals and participating in broadening and enriching activities. One year of schooling would be saved at the secondary level, with implementation of one of the secondary-level extended school year plans previously described.

At least six variations of the extended K-12 plan have been designed. The first two used a K-6 and 7-12 organizational plan. Elementary-school pupils work through seven lengthened school years, spending their extra time at perfecting fundamental skills in a broadened and enriched curriculum. Implementation of the trimester plan (variation #1) or the quadrimester plan (variation #2) at the secondary level (grades 7-12) accomplishes the saving of one year of schooling out of 13.

Variations #3 through #6 use a middle school organizational plan. Generally, pupils in the lower and middle schools use their extra time for mastery, enrichment, and broadening activities, while the one year of schooling is saved in the upper school.

Variation	Grades in lower school	Grades in middle school	Grades in upper school
#3	K-4	5-7	8-12*
#4	K-4	5-8	9-12*
#5	K-5	6-8*	9-12
#6	K-6	6-8**	9-12

*Organized on trimester basis.
**Organized on quadrimester basis.

The New York State Department of Education suggests that if space is to be saved at the upper school level, variation #3 should be adopted.

Other variations of the extended K-12 plan may be developed. If it is desirable to save time and space at the middle-school level, grades 5-9 should be included in the middle school, with implementation of a trimester or quadrimester plan reducing these five grades to four levels.

The New York State Department of Education recommends a 204-day extended school year, which would require lengthened class periods in order to equalize time at the secondary level. If

shorter adjusted daily class periods are desired, a 210- to 212-day school year may be adopted.

The extended K-12 plan has the advantage of maintaining a uniform calendar throughout all grades. It also has implications for the school curriculum, because elementary-school pupils will have had more, and a greater variety of, educational experience by the time they reach the secondary level. By the end of the sixth grade, the pupil in the traditional 180-day school has had 1,260 days of schooling. Depending upon the length of the extended school year (205, 210, or 215 days) the graduating sixth-grade pupil in the extended school year program has had 175, 210, or 245 extra days of schooling. The curriculum of the upper grades must be revised to take this into account. If time is saved at the middle-school level, students entering the upper school will be a year younger than in the past. This fact may also require curriculum adjustment.

The New York State Department of Education estimates that at any one time, 58-75 percent of the pupils (K-12) will be using the longer school year to master fundamental skills and concepts and to broaden their backgrounds, while the remaining 25-42 percent will be using the longer school year to save one year of schooling out of 13.

The Department believes that this acceleration of the latter group of pupils will lead to reduced enrollments and a corresponding release of classrooms and teachers. There will be a savings in capital outlay, debt service, and operating costs in addition to reductions in current expenses.

A Florida Plan

The Florida Educational Research and Development Council studied the feasibility of adopting a similar extended K-12 plan in the schools of Polk County, Florida (22:39-43). The Council based its analysis on a 210-day school year, with one extra year for enrichment at the elementary level and one year of acceleration through the secondary school. The Council did not specify a particular plan for acceleration, however. Estimated expenditures, if the plan were implemented in Polk County schools, were as follows: initial increase in net school expenditures of 11 percent, declining only slightly over the first five years; eventual decrease of .72 percent in total net expenditures.

The Council recommended that the Polk County Board of Public Instruction adopt this plan if it were willing to make major changes in curriculum, enrichment, and acceleration policies (22:64).

A Broad Look at Extended School Year Programs

The extended school year designs developed by the New York State Department of Education represent a major departure from earlier plans for using school facilities year-round and/or having pupils attend school more days during the year. James E. Allen, Jr., New York State Commissioner of Education, and Lorne H. Woollatt, Associate Commissioner of Education for Research and Evaluation, discussed the plans and their implications in School Management (53).

Allen suggested that although extended school year designs will not accomplish all objectives and meet all needs in education--such needs as providing more classrooms, reducing class size, eliminating obsolete facilities, making better use of funds, strengthening the curriculum, meeting the problems of disadvantaged children, and challenging and stimulating talented students--they can open the door to action in all of these areas.

There is no doubt that the extended school year holds major implications for pupils, teachers, administrators, and the community, for school curriculum, and for school finance.

Effects of the Extended School Year on Curriculum

Allen acknowledged the fact that without major changes and improvements in the curriculum, a longer school year will be just that. The educational value of the longer school year will depend upon what is done with the extra time. Allen suggested that some school districts may want to revise the entire school program, adopting new curricula, new grouping patterns, new teaching techniques, materials, and equipment, and improving supplementary services. According to Allen, extended school year designs encourage major revisions by providing a new framework for a stronger structure.

Obviously the curriculum must be revised in accordance with the extended school year plan, or variation thereof, adopted. Courses of study must be broken into new time blocks to correspond to a new school-year calendar. As an integral part of the continuous school year, the quadrimester, and stage four of the multiple trails plans, continuous progress requires much advanced planning and continuous teacher evaluation. The modified summer-school plan requires that a full semester's course be compacted into a seven- or eight-week period. The split trimester plan requires that pupils be able to begin a new subject in the middle of a trimester.

In addition to these required curricular changes, extended school year plans provide opportunity for development of new courses or

expansion of current courses. A subject having many skills and concepts to be mastered might be extended to three trimesters or four quadrimesters. With pupils having extra terms for a variety of elective activities, new courses may be developed. Or optional, broadening third-term courses (such as Advanced Biology lab following two terms of Biology) may be offered. Special work-study courses may be offered to college-bound as well as terminal secondary-school pupils.

Effects of the Extended School Year on Teachers

Curriculum revisions will undoubtedly place heavier demands on teachers. In most instances (e.g., the multiple trails plan) the new plans release teacher time, which may be spent on such tasks.

Woollatt suggested these effects on teachers: They must adjust to a different school organization and to the idea of working a longer school year. They must accept and implement the concept of continuous progress or individualized instruction that allows a pupil to learn as far and as fast as he can. Secondary-school teachers must be prepared to teach younger pupils. (53:148-49)

A longer school year will mean higher teacher salaries of approximately 10-20 percent, depending upon the plan adopted. According to Woollatt, experience with extended school year experiments suggests a probable salary increase of 12-13 percent.

Achievement of pupils taught by teachers who had worked through the equivalent of an 11-month school year is used to support the assertion that teacher efficiency is not impaired by a longer school year (60:91). Some observers contend, however, that a longer school year would place great physical and mental strains on teachers.

With the longer school year extending into the summer months, traditional summer-school activities of teachers are disrupted. To compensate for this, Allen suggested three alternatives: institutions of higher education might adjust their summer-school terms; teachers might be given more and more frequent sabbatical leaves; administrators might increase inservice programs (53:149).

Effects of the Extended School Year on Pupils

The longer school year would directly affect pupils. On the assumption of a revised and improved curriculum, the various plans would enable pupils to master fundamental skills and take remedial work, to take additional broadening or enriching courses or to lighten class loads, to complete advanced level programs or to study special vocational subjects (53:148).

It has been suggested that the longer school year would increase pressure on pupils and be detrimental to their mental and physical health. The countering argument is that classroom pressures might be decreased because elementary-school pupils have extra time in which to master fundamentals and secondary-school pupils may use their extra time for remedial work or for reducing their class loads. The extended school year plans do not eliminate school-year or summer vacations.

Results of experimental programs in New York suggested that "involvement in an active summer program is not detrimental to children's health." (60:109)

As an integral part of extended school year designs, acceleration has additional implications for pupils. Are pupils mature enough to graduate one year early? Will they be able to find jobs and enter college? If they finish the secondary-school course in the middle of the academic year, will they be able to enter college directly? The New York State officials answer these questions affirmatively, but emphasize their recommendation that no pupil accelerate more than one year. (60:99)

It has been suggested that today's pupils are more physically, sexually, and academically mature than those of a generation ago; thus, acceleration may be advantageous (60:97-98). Allen holds that maturity is not necessarily related to the number of years spent in school. Emotional and physical maturity generally does not increase between the ages of 17 (when most accelerated pupils would graduate) and 18 (when most pupils now graduate). (53:150)

Woollatt suggested that accelerated non-college-bound pupils will have an opportunity to continue vocational education programs in technical schools or colleges for a year or two before taking jobs. Countering the argument that early graduation of terminal pupils will glut the labor market, Allen says the extended school year will contribute young workers who are better educated and thus better qualified for available jobs. (53:150)

The New York State Department of Education has conducted surveys of colleges to discover their probable reactions to younger college applicants. A 1964 survey asked specifically, "What would happen if applicants for college admission from extended school year programs were 17-3 chronologically instead of 18-3?" Replies indicated that chronological age would not be an obstacle to admission if the applicant met the normal college entrance standards:

99.1 percent said 17-year-old boys would have equal or better chances of being accepted than 18-year-old boys; 97.8 percent made this statement about 17-year-old girl applicants. (60:97)

Responses to a survey of New York State's public institutions of higher education indicated that 43 percent would change their admission dates for entering high-school graduates. Half were willing to revise their school-year calendars. (60:102) It has also been suggested that graduating seniors might enter college at the beginning of the second semester or the summer session. Reportedly, many colleges, as some in Florida, have adopted a trimester calendar.

How Does the Extended School Year Achieve Economies?

The purpose of the 1963 New York state legislature's directive to the State Education Department was not only "to enrich and intensify the school program" and "to make better use of educational facilities," but also "to achieve significant economies" (60:1). The assertion that these extended school year designs do achieve economies has been met with some skepticism. Past studies of other year-round school plans (especially the rotating four-quarter plan) have shown that theoretical savings do not always hold in actual practice.

Woollatt, however, has stated his certainty that the economies of extended school year plans are valid, not just theoretical. Most of the savings is due to pupil acceleration. Allen reported that the extended school year is economical in that it releases classrooms and teachers; it eliminates or greatly reduces overcrowding and the need to build additional schools, thus requiring fewer janitors and staff members; it reduces transportation costs; it requires fewer textbooks. (53:91-92)

Financial savings do not occur immediately. During the transition period, while the new pupil flow pattern is taking over to eliminate one year of schooling, costs will be higher. These adjustment costs will be primarily for increased teacher salaries, retirement benefits, and the like. (See 58:107) Woollatt suggested that first-year adjustment costs will be about 10 percent over the normal budget (53:154).

Several variables will affect transition period costs. If the implementation is total (pupils at all grade levels included in the first year of implementation) rather than gradual (only entering pupils included in the first year, with a new class phased in each ensuing year), transition period costs will be lower. (See 58:109-11)

When the transition period is over, classrooms and teachers are released and savings begin to accrue. According to the New York State Department of Education, "the resulting savings in operating expenses alone will provide more than is needed to make the longer school year self-sustaining" (58:8). Several variables will affect the extent of the savings. Some of the extended school year programs can begin on a voluntary basis, "but at some sacrifice of the economy objective." (60:110) Allen stated:

> Our preliminary cost data from the pilot projects indicates that savings will depend to a large extent on the amount being spent on education in a given district. In an area where expenditures are high, savings will be considerably higher than in a district where expenditures are low. But economies probably <u>can</u> be realized in both districts.
>
> Ultimately, the actual amount of the savings depends largely on what the administration expects to get out of the extended school year. If the superintendent is determined to save money, he can do so. If he is equally concerned about improving the over-all program, he will probably plow most of his savings right back into the program. In either case, the district should be able to give more children a better education in a shorter period of time. (53:92)3/

The purported advantages of these extended school year plans need not be reiterated. Thomas summarized these advantages (58:117-19). Elsewhere he summarized the findings and conclusions (60:109-11) and 28 broad areas for consideration during the stages of planning for an extended school year program (60:104-106). The New York State Department of Education made one final recommendation:

> ...designs have been developed which can reduce school costs, if and when educators accept economy as a goal. However, it is doubtful that much support for most lengthened school year programs will be found unless specific educational objectives are combined with objectives of fiscal economy. (60:110)

In its publications, the Department offered suggestions for introducing the concept of an extended school year to the general public, parents, and teachers, and described the type of resistance likely to be found. It also offered suggestions for selecting a suitable design for one particular school system (60:79-86).

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Other Plans for Rescheduling the School Year

Several other plans have been suggested or adopted, but have received limited attention.

According to the Southern Education Report (55), the Woodstock Country School, Woodstock, Vermont, began its second year on a longer school year in the fall of 1967. The school, which is private and enrolls fewer than 100 pupils, operates on a 52-week school year, with four 10-week terms which are separated by three-week holidays. Reportedly, the Headmaster at Woodstock School considers the plan a great success. There have been few conflicts with the students' academic work and family vacations.

Education News (15) reports that beginning in June 1968, the San Jacinto Vocational and Technical High School in Houston, Texas, will operate year-round. The year will be divided into two traditional semesters and a 12-week summer semester. Students may attend any two of the three terms.

Schoenfeld and Schmitz (51:17) described a plan which, according to them, has not gained much response: an 11-month school year combined with a double-session day. Pupils attend school for four hours a day, and each session has a different set of teachers. Teachers work an eight-hour day, but spend their four non-teaching hours at administrative duties and professional improvement.

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